

For Reference

NOT TO BE TAKEN FROM THIS ROOM

THE CHARACTERISTICS OF A GROUP
OF MENTALLY COMPETENT OFFENDERS
AS REVEALED BY
THE RORSCHACH TEST.

FRANK W. SAMIS

JUNE 1957.

Ex LIBRIS
UNIVERSITATIS
ALBERTAENSIS



SYNOPSIS

This study is an attempt to evaluate the characteristics of "mentally competent offenders" as revealed by the Rorschach test. An experimental group was selected, comprising thirty-five adult males who had been remanded for mental examination to the Provincial Mental Institute, Edmonton. Having been adjudged mentally competent, these men were returned to court for trial, found guilty and sentenced accordingly.

Attention is centered on the fact that, once such persons are pronounced mentally competent, they are regarded as legally responsible for any offences they may have committed, whereas, those whom the Mental Hospital retains in custody as mentally incompetent are regarded as sick persons requiring treatment. The diagnosis of mental competence decides whether the offender is categorized as a sick person to be cured or a criminal to be punished. Thus, the concept of mental competence is a very fine point of distinction upon which hangs a man's legal fate.

The possibility that evaluation of an offender in terms of mental competence is inadequate and incomplete prompted the investigations carried out in this study. Three group comparisons were made in terms of Rorschach test findings to explore the possibility that, even though the offenders are mentally competent, they are not normal and therefore are deserving of treatment as sick persons rather than mere punishment as criminals. The three hypotheses are: (1) that the experimental group will differ significantly from Rorschach normal criteria and from a normal group, (2) that the experimental group will show characteristics attributable to psychopaths and found in a

specific psychopath group and (3) that the experimental group will show attributes of immaturity, both with reference to general criteria and in comparison with an immature group. By this means it was sought to establish that the offenders are not normal, that they are like psychopaths and that they are immature.

As a result of the comparisons, the first hypothesis appears confirmed. The personality patterns of the offenders are not normal. The second and third hypotheses were neither sustained nor disproven. Certain characteristics of the experimental group could be called psychopathic and immature, but not necessarily so. To label these men psychopaths seems too drastic a diagnosis. The attempt to establish immaturity failed in part because the concept of immaturity is not clear cut and varies from one age level to another, even as the significance of Rorschach responses varies between childhood and adulthood.

The confirmation of the first hypothesis lends strength to the view that persons can be mentally competent, non-psychotic, non-neurotic and even non-psychopathic, and at the same time be so mal-adjusted that the offences they commit against society are symptomatic of illness rather than indicative of perversity and guilt. Dealing with such persons in terms of conviction and punishment is inappropriate and should be replaced by diagnosis and therapy.

7(F)
9
THE UNIVERSITY OF ALBERTA

A STUDY OF THE CHARACTERISTICS OF A GROUP OF

MENTALLY COMPETENT OFFENDERS

AS REVEALED BY

THE RORSCHACH TEST

A DISSERTATION

SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF MASTER OF ARTS

FACULTY OF ARTS AND SCIENCE

DEPARTMENT OF PSYCHOLOGY

by

FRANCIS WILLIAM SAMIS

EDMONTON, ALBERTA

JUNE, 1957



Digitized by the Internet Archive
in 2018 with funding from
University of Alberta Libraries

<https://archive.org/details/Samis1957>

ACKNOWLEDGMENTS

I am indebted to Dr. D. Spearman of the Department of Psychology for his oversight and guidance in carrying out this project. For test data I am grateful to Mrs. W. M. Simmons, now Consulting Psychologist in Greenboro, N. C., and Mrs. A. E. Koch, Clinical Psychologist at the Provincial Mental Institute, Edmonton. For his interest and permission to use material from the hospital files, my special thanks are due to Dr. A. D. MacPherson, Medical Superintendent of the Provincial Mental Institute. In coping with some statistical problems, Professors L. Wilson and A. J. B. Hough of the Department of Psychology and Dr. G. K. Horton of the Department of Mathematics were most helpful. Appreciation is also extended to Dr. D. E. Smith for the training in experimental method which underlies this work. While credit and thanks are due all these and others for their encouragement and help, full responsibility for the shortcomings and mistakes rests with the writer.

F. W. S.

TABLE OF CONTENTS

	<u>Page</u>
Examiners' Certificate	i
Synopsis	ii
Title Page	iv
Acknowledgments	v
Chapter	
I. INTRODUCTION	1
The Hypotheses Stated	3
II. SURVEY OF THE LITERATURE	5
The Concept of Normality	5
The Concept of Psychopathy	12
The Concept of Immaturity	28
III. PROCEDURE	36
Constitution of the Experimental Group	36
Selection of the Normal Group	39
Selection of the Psychopath Group	40
Selection of the Immature Group	42
Statistical Procedures	42
Interpretative Procedures	44
IV. RESULTS	46
<u>Part I</u>	
Rorschach Test Findings With the Experimental Group	48
<u>Part II</u>	
A Comparative Psychogram	52
<u>Part III</u>	
A Discussion of the Experimental Group in Terms of Normal Expectancies and Comparison with the Normal Control Group	57

Part IV

A Discussion of the Experimental Group in Terms of Psychopathic Criteria and Com- parison with the Psychopath Control Group	59
---	----

Part V

A Discussion of the Experimental Group in Terms of Immaturity and Comparison with the Immature Group	70
--	----

V. CONCLUSIONS	78
----------------	----

VI. RECOMMENDATIONS	79
---------------------	----

APPENDIX A The term <u>mental competence</u>	81
--	----

APPENDIX B Section 16 of The Criminal Code of Canada	82
---	----

APPENDIX C The term <u>remand</u>	82
-----------------------------------	----

APPENDIX D Section 451 of The Criminal Code of Canada (Excerpt)	83
--	----

APPENDIX E <u>Psychopathic Personality</u> The American Psychiatric Association Classification	84
--	----

APPENDIX F <u>Character and Behavior Disorders</u> The U.S. Army Classification	84
--	----

APPENDIX G <u>Pathological and Immature Personality</u> The Dominion Bureau of Statistics and World Health Organization Classification	85
--	----

APPENDIX H Results with the Fisher \bar{z} score Formula in comparing the Experimental and Psychopath Groups	86
--	----

BIBLIOGRAPHY

LIST OF TABLES

<u>Table</u>		<u>Page</u>
I.	Normal Rorschach Expectancies	10
II.	The Symptoms of the Psychopath	15
III.	Changes in Children's Rorschach Scores with Increasing Age	30
IV.	Changes in Children's Rorschach Scores with Increasing Age	31
V.	Offences Committed by the Experimental Group	38
VI.	Matching the Experimental, Normal and Psychopath Groups	41
VII.	Rorschach Test Findings with the Experimental Group	48
VIII.	Critical Ratios for the Experimental Group and Wedemeyer's Normal Group	60
IX.	Comparison of the Experimental Group and Geil's Psychopath Group	66
X.	Comparison of the Experimental Group and Stavrianos' Immature Group	75

LIST OF PLATES

<u>Plate</u>		<u>Page</u>
I.	The Experimental Group Psychogram	51
II.	A Comparative Psychogram. Locations	53
IIIA.	A Comparative Psychogram. Determinants	54
IIIB.	A Comparative Psychogram. Determinants.	55
IV.	A Comparative Psychogram. Content	56
V.	The Normal Group Psychogram	62
VI.	The Psychopath Group Psychogram	68
VII.	The Immature Group Psychogram	77

Chapter I

INTRODUCTION

Through the observation wards of the Provincial Mental Institute at Edmonton flows a steady stream of persons who have been accused of criminal offences, brought to trial and remanded to the mental hospital for psychiatric examination. If, as a result of the examination, a person so accused is found mentally "not competent", he is treated thereafter as one who is ill. He may be detained at the hospital, perhaps for life, but as a patient undergoing treatment rather than as a criminal in penal servitude.¹ If, however, an accused person is pronounced mentally competent to stand trial and subsequently is proven guilty in court, he is subject to sentence according to the provisions of the Criminal Code of Canada. An individual in this category is not regarded as a sick person, but as a mentally competent and hence morally responsible agent who has broken the law and who thus is liable to sentence as a criminal offender. Even though his subsequent treatment in prison may be designed for his re-education, reformation and rehabilitation, his legal status is that of an offender who must pay the penalty prescribed by law. This is made clear in those cases where the sentence imposed is a fine or capital punishment. The mentally competent offender legally is not regarded as a patient to be treated but as a responsible individual who must stand trial and answer for his actions.

1. For a discussion of mental competence see Appendix A. For description of legal procedures, see Appendices B, C and D.

This thesis is concerned with a group of the latter type who have undergone examination at the Provincial Mental Institute in recent years. The persons to be studied all were pronounced mentally competent and returned to the court for trial, where they were found guilty and sentenced. As a part of his psychiatric examination at the Institute, each person was given the Rorschach test. These test findings are the basis of this study.

It is possible that, even though their mental competence involves their legal responsibility, these offenders are sick persons too. They may not be as ill as those whose demonstrated mental incompetence clearly gave grounds for their being treated as mentally ill. Perhaps their difficulty is of a different sort. Their personality trends as shown in Rorschach tests results indicate that these offenders suffer from tensions and maladjustments which are themselves an affliction and an illness. They do not appear to be just wilfully perverse people whose only need is the appropriate punishment to make them mend their ways. They, too, are ill.

What is the nature of their illness? They do not appear to be psychotic. That was ruled out in their psychiatric examination. The influence of constitutional factors is a possibility we must examine. Organic deterioration or damage, though, cannot have been significant or a diagnosis of mental incompetence would have followed. Their case records do not reveal the presence either of drug addiction or chronic alcoholism. To be sure, intoxication was a feature of some specific offences, but chronic alcoholism was not found.¹ As regards

1. Chronic alcoholics are missing from this group because, as a rule, they are treated at other institutions than the mental hospital.

psychoneuroses, the situation is less clear. There are some indications. Considering the fact, though, that neurotic elements are a feature of most "normal" persons, neurotic references are markedly few in the clinical records of this group. In their diagnoses, the terms psychopath, pathological, inadequate and immature recur. As a group, however, they were not chosen with any diagnosis in mind but as mentally competent offenders.¹ Because of the nature of their offences and many features of their case records, the question arises as to the maturity of these persons. Do they behave like grown men? How would their reactions compare with those of a normal immature group, say pre-adolescent boys? With such considerations in mind, the hypotheses were formulated.

The hypotheses are:

I. That the Rorschach test findings with the experimental group of "offenders" will differ significantly:

- (a) from normal Rorschach "expectancies".
- (b) from the test findings with a so-called "normal" group selected from the literature.

II. That the Rorschach test findings with the experimental group will reveal characteristics:

1. See appendices E, F and G.

- (a) generally attributed to character disorder types referred to in some classifications as "psychopaths".¹
- (b) specifically found in a so-called "psychopath" group selected from the literature.

III. That the Rorschach test findings with the experimental group will show characteristics of "immaturity".²

- (a) in accordance with Rorschach findings with pre-adolescents generally.²
- (b) in accordance with the test findings with a group of "immature" (pre-adolescent) boys selected from the literature.

-
1. The use of the terms psychopath and pathological personality are discussed in Appendices E, F and G and in the Survey of the Literature.
 2. As, with adolescence, characteristics of maturity emerge, the pre-adolescent period, prior to the age of twelve is taken as the age of immaturity.

Chapter II

SURVEY OF THE LITERATURE

Literature relevant to this study primarily is that dealing with the Rorschach test as worked out in the Klopfer method and pertaining to findings with three different categories: normal, psychopath, and immature. This involves, as well, an appreciation of what is meant by these terms in contexts other than the Rorschach. The two aspects, of course, are interrelated.

The Concept of Normality.

One view of normality is that of the statistician. The normal is the average. The normal condition is discovered by counting all the cases and computing means and standard deviations. If the group is well behaved it will fall into a normal distribution. Any other sort of curve suggests to the statistically minded that here is a condition which is not normal. This is a concept of relativity. One's position on the distribution curve determines how normal one is in relation to other individuals or groups.

Another approach to normality is a rather negative one, a clinical process of elimination. One of our control groups appears to have been constituted somewhat in this manner. Wedemeyer (59) found her group normal "in the sense that they functioned in society and had no mental illness requiring hospitalization." By this criterion a person is presumed normal if he is not proven otherwise. If he is not psychotic,

not markedly neurotic, not an aggravated behavior problem and has an I.Q. of at least Dull Normal and not above Bright Normal he is, by the process of elimination, "Normal". Rapaport's Patrol Groups exemplify this type of normality (47).

The inadequacy of both of these concepts is brought out by the Rorschach test. Rorschach results demonstrate that normality is neither a matter of averages and relative position nor a category arrived at by the process of elimination. The Rorschach test does not evoke uniform responses from normals or any other group. As Beck observes (2) "The fact is that no fairly large number of persons in good or any other mental condition give any set of responses 'most frequently'."¹ The uniqueness of individual Rorschach records requires evaluation of each case on its own merits. This is Buhler's functional definition of normality (7). An organ is performing adequately or normally when it is fulfilling its purpose. Thus normality is a matter of how an individual is functioning in terms of his native equipment, his needs and the environment. This suggests that normality is a highly individualized matter. If a person is employing his native equipment to the fullest usefulness which his environment will permit, he is, for him, normal. Maintaining that "adequate functioning according to purpose and adequate functioning in adjustment to environment are only approximations", Buhler concludes that this relative relationship makes the use of statistics unavoidable.² The normal persons, in this view, are those who are making as good an approximation as we may find in average life to the maintenance of -----

1. S.J.Beck, Rorschach's Test, New York, Grune and Stratton, 1950, Vol. I, p. 155.

2. C.Buhler, K.Buhler and D.W.Lefever, Development of the Basic Rorschach Score with Manual of Directions, Los Angeles, Western Psychological Services, 1948, p. 9 ff.

internal consistency and unified wholeness on the one hand and environmental adjustment on the other. Normality would be a matter of adjusting satisfactorily to a particular environment in the light of one's natural equipment.

This view, however, is too subjective. According to it, every man would be normal in his own little world. We are recalled to a more realistic position by the evidence. Clinical investigation and experimental research have demonstrated that, although every man's Rorschach responses reflect his own uniqueness, nevertheless, statistically, certain response frequencies and relationships do emerge. The diagnostic use of these ratios, percentages and patterns is a well-established clinical procedure on the basis of which many generalizations have been made as to Rorschach "norms". The clinically derived norms are not always substantiated by those arrived at through work with experimental groups. One of the most unreliable procedures is the attempted interpretation of the score of one category taken out of context. It is the total pattern that is meaningful for any individual. Rapaport lists "The Major Dimensions of the Rorschach Test" as area, content, determinants, form-level and a "fifth category", which includes "populars", combinations and constructions and an inclusive subgroup of unusual responses.¹ The conclusion of the matter is that ratios and relationships, interpreted with clinical insight, mean more than do isolated scores or percentages. Statistical generalizations must be made with great reserve.

1. David Rapaport, Merton Gill and Roy Schafer, Diagnostic Psychological Testing, Chicago, The Year Book Publishers, 1945, Vol. II, p. 101 ff.

Rorschach researchers, to some extent, have worked against themselves by their failure to agree upon any common system of scoring. Because of this it is not possible to make thoroughgoing comparisons of results emanating from different "schools". As our present study is concerned with research done mainly according to the Klopfer method, the work of Beck, Rapaport and their followers has been used for purposes of comparison only at certain points.

The normative clinically-formulated statement of Rorschach expectancies for those working with the Klopfer system is, of course, Klopfer (31, 32). Writers such as Ames et al. (1), Phillips and Smith (46) and Bochner and Halpern (5) make their own clinical estimates. Upon examination, their suggestions are seen to follow Klopfer so closely as to be very nearly identical. The really significant disagreements with Klopfer's norms have been brought to light through the work of investigators who have carried out comparative group studies.

Neff and Lidz, in their experimentally based examination of Rorschach's criteria (42), found "that the intelligence level had a greater effect upon the range of responses and their configuration than was anticipated." Subjects divided into three intelligence groups: upper, middle and lower, produced markedly different Rorschach results, the lower group varying greatly from Klopfer's criteria. Neff and Lidz' findings suggest "that an intelligence level somewhat above average is requisite for adequate, rounded performance upon the test. Only the group with superior intelligence approximated standards usually considered adequate for 'normal' individuals. The groups with average and inferior intelligence yielded patterns very similar to one another and

which would have been considered 'neurotic' according to both the Harrower Erickson and Ross and Ross system of diagnostic signs."

In a later study, Neff and Glaser (43) compared 50 normals from a vocational guidance agency with Beck's department store normative sample (3). They found that their normal group produced Rorschach results considerably more enriched than Beck's group and that their neurotics were more like Beck's group than were their normals. In interpreting these differences Neff offers a somewhat more inclusive theory than his earlier explanation in terms of intelligence. He notes the influence of social status, education and culture on Rorschach performance.

Rapaport makes similar observations with reference to the social, educational and cultural limitations of his Patrol Groups.¹ The Rorschach records of 47 applicants for stenographic jobs at the Menninger Clinic showed an average response of 26 as compared with 17, 18 and 16 for the Patrol Groups. Rapaport found that his culturally restricted and generally mediocre normals divided into three groups on the basis of adjustment, and that Rorschach performance varied accordingly.

The clinically derived criteria of the Klopfer school are presented in Table I. along with the findings of several investigators who, working with experimental groups of presumably normal persons, have provided further information as to what may be taken as "Normal Rorschach Expectancies."

1. Rapaport, op. cit., pp. 114, 393 ff.

Table I

NORMAL RORSCHACH EXPECTANCIES

	Klop- fer*	Beck	Rapaport**			Brock way	Cass and McReynolds	Neff and Lidz***		
			1	2	3			1	2	3
R	20- 45	32.6	17.1	18.7	16.8	26.2	22.5	25.6	14.2	13.7
W%	20- 30	19.8	45.6	50.9	34.0			38.	48.	54
D%	45- 55							50.	42.	37.
d%	5- 15							2.	1.	3.
D&d%	50- 70	71.9	47.2	40.2	60.0					
Dd&S%	10 (Max)	8.23						10	9	6
M	3	3.5	1.	.5	.8	2.	2.	2.	1.	0.8
FM			.2	.1	.2	3.7	3.5	4.3	3.2	2.8
m	1-2					1.2	.5	.12	.24	.14
k						.2		.18	.14	.07
K	up to 3					.1		.06		.07
FK	a few					.2		.07	.02	.03
F%	50		64.8	58.6	67.6	42	33	42.5	51.1	51.7
Fc						1.4	2.	1.5	.5	.5
c						.7		.06	.08	.07
C'			.56	.7	.4	.9	1.	.28	.19	.17
FC	"Sev eral"	1.36	1.1	2.0	1.2	.9	1.5	3.	.6	.6

Table I (Cont.)

		Klop- Beck fer*	Rapaport**			Brock way	Cass and McReynolds	Neff and Lidz***		
			1	2	3			1	2	3
CF	Dep-ends.	1.44				2.4	2.0	.9	.6	.8
C	Pathological	3.11						.5	.4	.5
H%		12.3	15.1	5.4	11.4	9.1	11.1			
A%	20-35	46.4	51.3	45.8	41.0	34.7	40.	52.8	56.7	52.7
P%			33.1	26.1	26.4					
P	about 5	6.79	5.2	4.0	4.2	5.6	5.5	3.8	3.6	3.7
Form	2.0 and up									
M:FM	2:1		1.2	5:1	8:2	2:4	2:3	2:4	1:3	1:3
FC:	FC>				.2:1.0					
CF&C	CF&C		.2:1.7	.1:3.7		1:2.4	1.5:2	.3:1.9	.6:1.6	.6:1.8
W:M	2:1									

* The clinically derived criteria of Ames, Phillips and Smith, and Bochner and Halpern generally follow Klopfer.

** Rapaport's Groups 1, 2 and 3 are his Well-Adjusted, Borderline and Maladjusted Patrol Groups respectively.

*** Neff and Lidz' Groups 1, 2 and 3 are their Upper, Middle and Lower Intelligence Level Groups, in that order.

The Concept of Psychopathy.

One can neither define nor understand the psychopath in terms of symptoms. An adequate appreciation necessitates going behind symptoms to causes. Nevertheless, a knowledge of symptoms is necessary to a well-rounded view and a satisfactory definition.

Care must be taken to discriminate between those symptoms which are the distinguishing features of the psychopath and those which may be associated not only with psychopathy but with other maladjustments. That which comes closest to being the uniquely distinguishing sign of the psychopath is absence of conflict. Karpman (29) points out that the psychoneurotic or psychotic may indulge in the same kind of anti-social behavior as the psychopath. Their behavior, though, flows out of their conflicts while the psychopath's behavior is unaccompanied by conflict and seems to be a natural development of his original personality. With the psychotic and psychoneurotic the antisocial acts are symptomatic of a conflict which the psychopath does not experience. Strecker and Ebaugh (52) contradict this, believing that the psychopath's freedom from anxiety is only apparent, that basically he is very unhappy and anxious and must continually move from one love object to another, "continually running away from the superego".¹ In this Strecker and Ebaugh follow Reich and Fenichel (16). Strecker and Ebaugh, however, do seem to believe that whatever conflict the psychopath has is buried

1. E.A. Strecker and F.G. Ebaugh, Clinical Psychiatry, Philadelphia, Blakiston, 1935, p. 312.

so deeply as to give the appearance of an absence of feeling in the emotional and ethical sphere. Thornton (53) describes psychopathic personality as identifiable by symptoms neither psychotic nor neurotic, the most significant of which is "an apparent absence of common moral and ethical sensibility." Where any compunction may be discovered, Thornton would call it neurotic rather than psychopathic. Hathaway (21) describes psychopathic inferiors as "a non-psychotic group whose main difficulty lies in their absence of emotional response." Henderson and Gillespie (24) also emphasize both the lack of psychotic abnormality and the absence of shame and tenderness as marks of the psychopathic personality.¹

Closely associated with the psychopath's absence of conflict is the inability to learn from experience. Karpman holds that "the real psychopath cannot profit by any lesson and lacks judgment for normal social relations." Strecker and Ebaugh mention "inability to profit by experience" as one of the chief symptoms, as does Hathaway.

Lack of control may not be a uniquely psychopathic symptom. Others are driven by obsessions and compulsions over which they seemingly have no control. It is considered, nevertheless, to be a psychopathic feature. Cason (10) defines the psychopath as "a personality reaction type and a functional condition of the individual in which there is a serious lack of ability to control several of the primitive drives and

1. J.C. Coleman, Abnormal Psychology and Modern Life, New York, Scott Foresman, 1950, p. 336.

antisocial modes of behavior. Strecker and Ebaugh mention "a general impulsiveness and inability to postpone gratifying their wishes and desires".¹ Noyes (44) states that "the personality of the psychopath seems to be dominated by primitive basic drives to the exclusion of rational behavior."²

While egocentricity is not the exclusive attribute of the psychopath, it is so frequently mentioned as a prominent symptom that it appears to be a distinctive characteristic. Perhaps every student of psychopathy from Kraepelin onward has noted this feature. Noyes calls the psychopath "egocentric, demanding, purposeless and irresponsible."³ Thornton mentions egocentricity along with selfishness and flagrant disregard of the needs and rights of others. Chornyak (12) found it an outstanding characteristic. Geil (17) called his psychopathic group egocentric as a result of their Rorschach tests. Kahn described them as "active autists and egocentric."

Cason compiled a table of The Symptoms of the Psychopath. Included, however, are features related to maladjustments other than psychopathy. While all that Cason lists does appear to be truly descriptive of the psychopath, most of the features mentioned, combined with other elements and varied in degree, might apply to anyone from normal to psychotic.

1. Strecker and Ebaugh, op. cit., p. 310
2. A.P. Noyes, Modern Clinical Psychiatry, Philadelphia, W.B. Saunders, 1948, p. 411
3. Noyes, loc. cit.

Table IIThe Symptoms of the Psychopath.¹

- A. History.
 - 1. Poor emotional environment of early home.
 - 2. Poor early associates.
 - 3. History of poor behavior.
 - 4. History of antisocial conduct.
- B. Morals.
 - 5. Poor moral sense.
 - 6. Poor sense of fairness and justice.
 - 7. Poor conscience.
 - 8. Not concerned over interests and welfare of other people.
- C. Cognition.
 - 9. Egocentric.
 - 10. Deductive rather than inductive.
 - 11. Poor insight.
 - 12. Paranoid tendency.
- D. Affection.
 - 13. Prone to anger.
 - 14. Prone to hate.
 - 15. Hostile.
 - 16. Mean or ruthless.
- E. Conation.
 - 17. Self assertion.
 - 18. Impulsive.
 - 19. Anomalous and self-thwarting behavior.
 - 20. Threatening or pugnacious.

1. From Hulsey Cason's "The Characteristics of the Psychopath", Amer. Jour. of Psychiatry. 105. Sept. 1948. p. 218.

Indeed, once we have mentioned the signs associated with absence of conflict, the attempt positively to identify the psychopath in terms of symptoms is made exceedingly difficult because of the number of conditions producing common symptoms. Noyes and Strecker and Ebaugh particularly warn against indiscriminate use of the term psychopath with delinquents and criminals on the basis of symptoms that might be interpreted otherwise. Karpman mentions pyromania and kleptomania as instances of behavior often called psychopathic but more properly termed psychoneurotic. This is because such behavior, while definitely in

conflict with society, is also the result of deep seated conflicts arising from psychogenic difficulties. Cason recognizes how widely applicable to other categories are the symptoms on his list when he comments that "all the symptoms of the psychopath are human and natural, and these symptoms practically coincide with the forms of behavior which the leaders of the great world religions have urged man to attempt to control". "Most people have psychopathic symptoms and it would seem that for a person not to have any of the symptoms of the psychopath even to a slight degree it would be necessary for him to be a saint."¹

Because of the propensity to use the diagnosis of psychopathy too freely and without careful enough discrimination of symptoms, Strecker and Ebaugh call this "the wastebasket diagnosis."² Noyes identifies psychopathy as including those continuous or recurrent disorders which lie in the wide zone between mental health and mental disease and yet lack the symptomatic features usually considered neurotic or psychotic. As to just what these are or what causes them, Noyes admits that not yet is there any common agreement.³ Henderson concludes that it is easier to recognize psychopathy by saying what it is not than by trying to state what it is. He believes there is a danger of the term psychopathic state being used too uncritically and would reserve it "for those, who, after full consideration of all the facts and everything else has been ruled out, still fail to correspond to any of the

-
1. Hulsey Cason, "The Characteristics of the Psychopath", Amer. Jour. Psychiatry, 105, Sept. 1948, p. 218
 2. Strecker and Ebaugh, op. cit., p. 310.
 3. Noyes, op. cit., p. 410.

more well-defined groups. There should be no necessity to warn psychiatrists that the term is not equivalent to habitual criminality."¹ Even though they may wish to avoid the use of psychopathy as a waste-basket diagnosis, psychiatrists seem unable to get away from the process of elimination. Healy (22) used this method, ruling out insanities, neuroses or mentally defectives. Thereafter, however, he moved positively, looking for structural, functional and psychic anomalies. Henderson concludes that the proper approach is the total approach. We must deal with the whole biological unit termed the individual. "Any smaller unit is an abstraction."²

Karpman, in his article on "The Yardstick for Measuring Psychopathy" describes two types. Type A, which he calls "secondary and symptomatic" occurs where the presence of psychological motivation may be elicited. This type of psychopathy is symptomatic of underlying difficulties which can be traced to their basic motivations. With these persons, the motivations can be uncovered and treatment is possible. Type B psychopathy, Karpman calls "primary and idiopathic". No amount of study reveals the psychogenesis of this person's behavior. "He is what he is and does what he does by reason of what he always was and always did. The reaction is so deeply ingrained in him that it seems as if it had been with him from birth".³ In the case of this primary, original, essential, idiopathic psychopath no psychogenetic motivation can be elicited. Karpman's opinion regarding this primary type is that, at

1. Henderson, op. cit., p. 119.

2. Ibid., p. 35.

3. Benjamin Karpman, "The Yardstick for Measuring Psychopathy", Federal Probation, 10, Oct.-Dec. 1946, pp. 26-31.

least for the present, it is a waste of time to try to cure him. He is unable to benefit by experience and we simply lack knowledge of what to do about him. For the secondary type there is hope. The problem is to find out the underlying motivation. What makes him act that way? Karpman's classification leaves us with the question as to whether his secondary type is truly psychopathic. It also turns our thoughts away from the fruitless attempt to understand the psychopath by his symptoms and directs attention to the search for underlying causes.

What are the causes of psychopathy? Are they constitutional, social, psychological or a combination of all three? Henderson¹ stresses constitutional etiology, attributing increased interest in this field to progress in constitutional medicine based on biochemistry, the discovery of the endocrines and the advance of medical psychology. The constitution is the whole being, physical and mental. It is partly inborn and partly environmental and is in a state of flux, varying from hour to hour. The constitution has three main aspects: anatomical or morphological, physiological or functional and psychological.

The question of constitutional etiology leads into the study of anatomy, physiology and neurology. It involves the research findings of brain surgery. Henderson² notes that the center of interest here is concern with the functions of the hypothalamus. He cites clinical cases of brain lesions and excisions that were followed by changes in behavior and both clinical and experimental evidence of the influence

1. Henderson, op. cit., p. 32.

2. Ibid., p. 28.

of the pre-frontal lobes on conduct. Diffuse organic conditions, such as encephalitic chorea, idiopathic epilepsy and head injury result in conduct changes from which we infer neurophysiological changes. The very fact that a hungry man is an angry man suggests a relationship between metabolic and biological functioning and behavior.

Linder (35) points out that "research with physiological registering apparatus indicates a fundamental functional difference between psychopaths and other persons. They show differences when their brain waves are examined and when their gross systemic responses are measured."¹ These differences, though, may follow and not precede the appearance of the psychopathic syndrome. Thus the psychopath's primitive reactions suggest malfunctioning or dysfunctioning of the higher centers of the brain which are supposed to control the lower centers. Chornyak suggests the same anatomical location of the trouble, attributing it to "structural damage to the phylogenetically youngest structures of the cerebrum". Noyes, however, believes that, at present, in the search for the origins of psychopathic personality the emphasis should be psychodynamic rather than constitutional. He thinks that the abnormal encephalograms in psychopathic personalities are due either to organic disease of the brain or to epilepsy and that "one of these conditions is an etiological or contributing factor in the production of the behavior maladjustment."²

In considering the social origins of psychopathy, it is necessary to distinguish clearly between truly psychopathic states and criminal

1. R.M. Lindner, Stone Walls and Men, New York, Odyssey Press, 1945, p. 156.
2. Noyes, op. cit., p. 417.

behavior in general, for a clear differentiation between psychopathic and non-psychopathic criminality does emerge. Writing on "The Criminal Personality", Coutou (14) suggests that (1) all behavior, criminal or otherwise, is normal for the conditions under which it occurs, (2) a person's behavior is determined by the group with which he is most closely identified and (3) all behavior is the result of stimuli: if you would understand a man's behavior, investigate the stimuli which produce it. In Coutou's view, then, criminal behavior is a natural result of environmental and in-group stimuli. The criminal will be like his background. He will resemble or rather be intrinsically an expression of the pre-dominant characteristics of his environment. These will make him according to their own pattern and inherent nature. This, however, is not the case with the psychopath. If he is made by his environment, it is a negative process. He is not a willing, positive and happily adjusted embodiment of environmental and group influences. Rather, he is the opposite. To be sure, an individual who has grown up in an underworld, jungle type of environment may be thought of as expressing harmoniously his origins as long as he remains in that environment. When he moves into the law-abiding areas of society, however, he is out of joint and his behavior is psychopath - like. But his underworld milieu is not isolated. From the first he is aware, however dimly, that he is underprivileged and that there is another side of the tracks, a "respectable", "upper crust", privileged segment of society to be hated and rebelled against. In this sense, social environment is unitary, pervasive and shared by all. This offers, however, no adequate explanation of the psychopaths who grow up "on the right side of the tracks".

While much criminal behavior may, perhaps, be explained most readily by a "natural outgrowth of surroundings" theory, the problem remains of those who go against the environment. This latter type of behavior is described by Lindner, who speaks of "a constellation of personal qualities which reflect the opposite of the characteristics in demand by the culture."¹ According to this view, if the culture makes the psychopath, it is by a negative process of opposition and frustration rather than through positive nurture. The psychopath is at variance with his group and is impervious to its stimuli. Lindner suggests that the psychopath's traits might suit very well some other culture than ours, being most appropriate, perhaps, to frontier days. As for present-day society, though, the psychopath has rejected it and his obligations to it, although he continues to make his demands upon it.

Lindner refers to the influence of social conditions as "events which traumatize the growing child and thus fix as in an antique daguerreotype his psychological development in the pre-oedipal stage".² Henderson contends that environmental factors by themselves are not so harmful. "It is their influence on a mind already unduly sensitive and susceptible".³ But how do they get susceptible? This leads to a consideration of psychodynamics.

The theory that psychopathy results from arrested psychosexual

1. Lindner, op. cit., p. 151.

2. Ibid., p. 158

3. Henderson, op. cit., p. 32.

development is held by Lindner.¹ The psychopath is described as never having gotten beyond the pre-oedipal stage and being motivated by bitter hate of the father and the father image. Because of this retardation, the superego is stunted and the ego's development halted in the megalomaniac stage of infancy. With no adequately developed ego or superego "they know only the crying need of the id".²

Whereas the compulsive patient carries out an act to relieve anxiety, the psychopath behaves as he does because it gives him pleasure. This, say Strecker and Ebaugh,³ is true inasmuch as the psychopath's superego is poorly developed, resulting in poor judgment and deficient moral sense. It may be, however, that the psychopath's freedom from anxiety is only apparent, and that actually he is very unhappy and anxious and is continually running away from the superego. These views find support in the writings of Fenichel, who holds that "impulsive psychopaths, who often are considered to have no superego at all, reveal in analysis that they have temporarily isolated the demands of their superego, so that these demands are not effective when the "psychopath gives in to his impulses."⁴

1. Lindner, op. cit., p. 154 ff.

2. Ibid., p. 158.

3. Strecker and Ebaugh, op. cit., p. 312.

4. Otto Fenichel, The Psychoanalytic Theory of Neurosis, New York, W.W. Norton, 1945, p. 166.

Fenichel states the psychoanalytic point of view as follows:

Analysis does not confirm the assumption that impulsive characters are happy 'narcissistic psychopaths' who have no superego and can therefore gratify all their demands without any consideration for others. Assuredly a lack of lasting object relationships in early childhood or an oral fixation and traumatic experiences may make the complete and definite establishment of an effective superego impossible; for example, the parent figures may have changed in such rapid succession that there was objectively no time or opportunity to develop lasting relationships and identifications; however persons of this kind also experience frustrations and develop reactions to them. Their superego is not lacking, but incomplete or pathological, and the reactions of the ego to the pathological superego reflect the ambivalences and contradictions which these persons felt toward their first objects.¹

The part played by life experience in the making of a psychopath may be a question of what experiences. If, in youth and adulthood, the psychopath seems callous, unfeeling and impervious to his surroundings, it may be because of personality patterns already set and hardened by environmental influences at an earlier age. Noyes thinks "it is quite possible that the experiences of infancy and early childhood and the anxieties and difficulties of early years may, through the conflicts, aggressive tendencies and frustrations which they create, lead to the attitudes and response patterns observed in psychopathic personality."² Noyes also notes that the possibility of psychopathic patterns being

1. Fenichel, op. cit., pp. 374-5

2. Noyes, op. cit., p. 417 ff.

fixed at an early age detracts somewhat from the theory that these patterns are constitutionally innate.¹ Emotional patterns capable of influencing later life reactions have been evoked experimentally in infants three months old.² This means that children of neurotic or psychopathic parents are exposed from birth to abnormal mental influences. This view of psychopathic behavior makes it an overt expression of inner insecurity. The classic psychopathic symptom of absence of conflict is seen to be an illusion. The psychopath's conflict with society stands revealed as a strife between irreconcilable subjective demands that have been transferred to warfare between the ego and society. The lack of conflict, so called, is but a deceptive surface calm, so deeply is the psychogenic discord embedded in the psychopath's unconscious.

While agreeing that "a conspicuously defective or almost completely underdeveloped superego" is the distinguishing feature in psychopathic personality, Thornton (53) ascribes this condition "rather to constitutional deficiency than to dynamic repression in the sense of Freud". He believes psychopaths to be "victims of a congenital lack of any foundation upon which to build a superego". Henderson, while describing the psychopath as one who fails to grow up, remaining" at the level of the primitive savage, with a distinct distaste for reasoning and an impermeability to experience", stresses the influence of fear in creating this condition. Henderson does not think

1. Ibid., p. 418.

2. Ibid., pp. 418-9

psychanalytic explanations are adequate, favoring rather "the overall psychobiological approach." He observes that many psychopaths do outgrow their troubles, seeming to benefit by a maturing common sense.¹ This phenomenon, if it be true, would seem to uphold the psychogenic theory of early childhood influence. It is much more difficult to think of constitutional limitations as being outgrown. Lindner, on the other hand, believes the psychopath's prognosis is very poor. "Psychopaths can be treated, if at all, only by the systematic uncovering of the dynamic factors and events which precipitated the condition. Those in whom the attitudes have crystallized and patterns have jelled are beyond any therapy."²

Kuhn (34) discusses the problem of identifying psychopathy on the Rorschach stressing, as did Rorschach the greater importance of the total picture than any other factor. He also affirms: that the method of comparing average normal results with an average for psychopaths is "entirely inadequate;" that diagnosis by the test must be largely negative and by a process of exclusion rather than drawn from single factor; that the psychopathic personality takes many different forms, thus complicating the problem; and that a protocol with no signs of deterioration in intelligence, no definitely diagnostic psychotic indications and yet distinctly abnormal is suggestive of psychopathy. Kuhn mentions certain trends as possible indicators of psychopathy: strongly unstable color

1. Henderson, op. cit., pp. 112-120

2. Lindner, op. cit., p. 159

score, with few FC; shading (vista) responses; perseveration, often in series, especially of shading responses and infantile outbursts of a primitive type of superficial interpretation. He notes Boss's discovery of a definite correlation between deviation from social standards and the number of space responses. Phillips and Smith (46) note the signs of hostility and aggressiveness that distinguish the psychopath on the Rorschach. Surly compliance with authority is seen in "rough and grainy c". Other characteristic responses include inappropriate use of C', "black blood", "black fish", "visceral anatomy", "two bears fighting with blood splashed around", "fire", "hammer head" and "tomahawk". These examples refer to Card I.¹ The experience balance M: Sum C is seriously distorted in psychopaths. Because of extreme guardedness, M may exceed 3C. The greater the guardedness, the more severe the psychopathology. Sometimes this may result in only 1 or 2 responses being given.²

In studying a group of malingerers, Rosenberg and Feldberg (48) found a similar trend of guardedness. While malingerers are not necessarily psychopaths, malingering may well be a characteristic of psychopathy. The malingerer has a conscious fear that the test will be too revealing and will uncover facts he is attempting to hide. Hence his efforts at evasion produce Rorschach test results similar in this respect to those of the psychopath. Harrower-Erickson (20), in comparing the composite graphs of psychopathic personalities with other groups, noted that, with

1. Leslie Phillips and J.G. Smith, Rorschach Interpretation: Advanced Technique, New York, Grune and Stratton, 1953, pp. 96, 101, 121-131.
2. Ibid., pp. 84 and 183.

the psychopaths, normal ratios are reversed: e.g. CF > FC, FM > M and c > Fc.

Geil's group of psychopaths (17) were studied in terms of their significant similarity to a group of pre-adolescent boys. The similarity was discovered to be quite marked in the matter of form, shading, movement and bright color. Geil inferred from this that his psychopaths were immature and unstable in a manner similar to the pre-adolescents with whom they were compared. Lindner (36) failed to find many significant differences between a group he describes as "normal prison inmates" and 40 psychopathic criminals. His conclusion was that "no real basis of differentiation of psychopaths from controls has yet emerged from this study." He believes that psychopaths disclose themselves through the qualitative characteristics of the records. Walters (58), in comparing his prison group with Lindner's psychopaths, discovered that his group manifested the same qualitative characteristics as Lindner's: superficiality, avoidance, explosiveness, incompleteness and egocentricity. Walters doubted, however, if any of his group would be classified as psychopathic, concluding that "There is no unit delinquent character." Bochner and Halpern (5) found that the great majority of persons with behavior problems to whom they gave the Rorschach test proved to be something other than psychopaths, most of them being of less serious types of conduct disorder. Those diagnosed as psychopaths tended on the Rorschach to identify with more primitive forms of life, e.g. nature, water, scenery, clouds, rocks, etc. Bochner and Halpern, too, conclude that there is no overall pattern for psychopaths. The findings of all these researchers indicate the limited value of group

comparisons and suggest that any results emanating from the present study should be treated with great reserve.

The Concept of Immaturity.

In this study, the word immature is used in the sense of pre-adolescent. Since, with the coming of adolescence, the young person's behavior takes on more and more of the characteristics of adulthood, it is necessary to stay well away from adolescents in choosing groups for comparison. While allowance must be made for individual variations, the age of 12 may be taken as marking approximately the end of the pre-adolescent period. Actually, most boys do not arrive at puberty until a year or two later, although many girls mature somewhat earlier.¹ The boys used as an Immature Control Group are well within the bounds of pre-adolescence. Stavrianos (51) chose boys from 5 to 11 years, with a mean age of eight.

The Rorschach test has been used with children as young as 2 years of age with meaningful results. Several group studies have been made, covering various age ranges. Taken together, these cover the period from age 2 on up into adolescence and provide cumulative evidence of immature Rorschach trends. Some of the investigators in this field and the years included in each study are:

1. Lee J. Cronbach, Educational Psychology, New York, Harcourt Brace, 1954. pp. 79-85

Klopfer and Margulies (33)	From 2 years to 6 years 11 months.
Key and Vorhaus (30)	From 2 years to 6 years 11 months.
Paulsen (45)	Six year olds.
Hertz and Ebert (26)	Six and eight year olds.
Carlson (9)	Eight year olds.
Stavrianos (51)	From 5 years to 11 years.
Hertz and Barker (25)	At 12 and again at 15 years.
Salfield (49)	From 2 years to 16 years.
Ames et al (1)	From 2 years to 10 years.
Bochner and Halpern (5)	Clinical Observations.
Klopfer and Ainsworth Vol. II (31)	General Discussion.

Examination of the data shows that the distinctive feature is the more or less consistent way in which scores in certain categories change with advancing age. In a survey of the works of four investigators, Carlson combined data which indicate the trends between the ages of 5 and 11 years.

Table III.

Changes in Children's Rorschach
Scores With Increasing Age.¹

Category.	Age 5.	Age 11.	Trend With Age.
M%	0	13	Increase.
FM%	28	24	Decrease.
m%	0	2	Increase.
F%	51	46	Decrease.
FC%	8	8	Stable.
CF%	9	4	Decrease.
C%	3	0	Decrease.
H%	2	12	Increase.
Hd%	0.5	5	Increase.
A%	56	48	Decrease.
Ad%	3	10	Increase.
Aobj. %	0	2	Increase.

1. Condensed and adapted from a table compiled by Rae Carlson, presented in "A Normative Study of Rorschach Responses of Eight Year Old Children." J. Proj. Techniques, 16, 1952. 56-65.

Salfield's survey covered ages 3 to 16 and included work done by various investigators with seven different groups. Results with the youngest, middle and oldest groups are reproduced here to illustrate the trend.

Table IV.

Changes in Children's Rorschach
Scores With Increasing Age.¹

Category	Ford. Age 3-6	Loosli-Usteri. Age 10-12	Hertz. Age 12-16	Trend With Age.
No.	77	63	300	
R	16	23	27	Increase.
W	5	5	7	Increase.
D	9	15	14	Increase.
Dr	1	2	2	Increase.
Do	1	0	1	Stable.
F $\frac{1}{2}$ %	52	80	89	Increase.
M	0	0	3	Increase.
C	0	0	0	Stable
CF	1	1	0	Decrease.
FC	1	1	0	Decrease.
Sum C	2	1	1	Decrease.
A%	49	57	54	Increase.

1. Condensed and adapted from a table compiled by D. J. Salfield, presented in "An Attempt at a Numerical Evaluation of Rorschach Test Results," J. Gen. Psychol., 1950, 43, 305-11.

From the investigations consulted, certain generalizations emerge, such as the commonly observed fact that R increases with age all through the pre-adolescent period. Detail and Space responses (D,d,Dd and S) also tend to increase with age. W responses, on the other hand, fall off as age increases. Stavrianos found that earlier age W's are crude and undifferentiated, that W is the characteristic manner of perception of young children and that the younger the child, the more vague and undifferentiated are the W's. Klopfer and Margulies observed that "Quite a few of the very young children do not bother with any special portions of the card, assigning their more or less magic meaning to the whole card." At 2 years of age, 35% of their children's group used only W.

By the age of 6 none of the children used W exclusively. Kay and Vorhaus agree that the W increase stops at 6 years. They state that "The W's which depend on organization are fewer at all age levels than those which depend on one-sided use of some characteristic of the card. The percentage of organized W's increases with age, while those that are based on a mere outline of the card decrease. W-plus responses increase with age. Arbitrary and perseverated W's decrease."

In the determinants, Klopfer and Margulies say that the average child never reaches 1 M and that M's are to be found almost exclusively in superior children below the eight year level. Above that level, Stavrianos found that M's do occur. Klopfer and Margulies found that, with children, FM exceeds M and increases steadily. "FM represents a symbolic expression of instinctual drives which, up to puberty, naturally predominate in our inner life." Bochner and Halpern state that "An anthropomorphic FM" is a more likely pre-adolescent response than is M.¹ Paulsen found that, with increasing intelligence, FM increases. Stavrianos, however, discovered a falling off of FM between 5 and 11 years. Regarding m,k and K, Klopfer and Margulies found "too few to warrant any special significance in early childhood". With this Stavrianos and others would agree. Chiaroscuro generally seems to become important with adolescence, where it indicates insecurity, oversensitivity and mood swings. The vague unsureness and worry indicated by K and the sensitivity and self-consciousness indicated by c do not

1. R.Bochner and F.Halpern, The Clinical Application of the Rorschach Test, New York, Grune and Stratton, 1945, p. 107 ff.

appear to trouble pre-adolescents. F% increased steadily between the ages of 2 and 6 with Klopfer and Margulies' group. With Stavrianos' group, F% stays close to 50% in the 5 to 11 age range. Carlson also noted the stability of F% in the years between 5 and 11. Paulsen observed that F% appeared to be inversely related to I.Q. Color responses do not have the same significance for young children as for adults in the opinion of Bochner and Halpern.¹ Klopfer and Margulies found a steady FC increase in the 2 to 6 year range, while Stavrianos observed the opposite between 5 and 11 years. CF and C remained stationary with the Klopfer and Margulies group and decreased with Stavrianos' 5 to 11 year old boys. Stavrianos found the content of pre-adolescent responses "indeterminate", with more N noted at earlier stages. Bochner and Halpern observed that many children give anthropomorphic A responses.² Ames' table of the distribution of content categories³ with children between the ages of 2 and 10 shows an A% that wavers erratically between 41% and 50%, but an H% increasing consistently from 3% at 2 years to 16% at 10 years. Ames found the total number of content categories quite variable, with no firm trend discernible. There seems general agreement that Form Level increases steadily with age throughout childhood.⁴ Although Kay and Vorhaus found

1. Bochner and Halpern, op. cit., p. 117 ff.

2. Ibid.

3. Louise Bates Ames, et. al., Child Rorschach Responses, New York, Hoeber Harper, 1952, p. 90.

4. See Table IV p. 31.

the percentage of rejections decreasing significantly with age in their 2 to 7 year old group, Ames observed a sharp increase in rejections in the later years of pre-adolescence.¹ Popular responses increase steadily with age in the Kay and Vorhaus group. Ames observed a steady rise of P% from 10% at 2 years to 25% at ten.² Paulsen believes that the one definite pathological indicator in a child's response is the complete absence of P. What becomes pathological later may be quite normal in a six year old child. Thus, confabulation, stereotypy, vague form perception, the absence of M or C and explosive color reaction may be quite normal childhood Rorschach responses.

The Study by Ames, et al. of 650 children between the ages of 2 and 10 has given Rorschach test results for groups of fifty children at half-yearly levels between 2 and 6 and at yearly levels thereafter through to 10 years. This investigation reveals further the differences that occur at different age levels, pointing out that each age

has a unique and distinctive characteristicness which sets it apart from every other age level. The child does not simply grow "better" as he grows older. Behavior does not necessarily become integrated and better organized. On the contrary, ages of equilibrium, to some extent alternate with ages of disequilibrium, ages of expansiveness with ages of inwardizing. Ages when behavior appears to be well organized may be followed by ages which show marked inner disturbance. Ages at which subjects respond favorably to persons and things in the environment may be followed by ages of marked rejection of and rebellion against the environment.³

1. Ames, op. cit., p. 105.

2. Ibid., p. 286

3. Ames, op. cit., p. 289

This suggests that, just as Walters found with psychopaths that "There is no unit delinquent character"¹, so, with pre-adolescents, there is no unit immature character. Not only are individual differences great but variations with age within the pre-adolescent span are very great. We are left with the evidence, already noted, of trends, such as the increase with age of R, D, F~~4~~, H~~4~~ and well differentiated human, animal and detail responses which reflect maturing comprehension of the environment and appreciation of reality.

1. Page 27.

Chapter III

PROCEDURE

In this chapter, the method used in constituting the experimental group will be described, followed by an explanation of the selection of the control groups: normal, psychopath and immature. This will be followed by a discussion of the methods of test interpretation and inter-group comparisons employed.

Constitution of the Experimental Group.

This group is composed of 35 offenders remanded from the Edmonton City Police Court to the Provincial Mental Institute for examination as to their mental competence to stand trial. In order to assemble a group large enough and at the same time to meet the requirements of group matching, it was necessary to select cases from the Institute's psychological files covering a period from May 16, 1951 to October 29, 1955. The 35 Rorschach tests were administered by the two clinical psychologists in charge of testing at the Institute during the period mentioned.¹

-
1. The first 13 tests were given by Miss Roberta Kiefer (now Mrs. W. M. Simmons) in 1951 and 1952. The remaining 22 tests were administered by Miss Margaret Hallberg (now Mrs. A. Koch) in 1954 and 1955. These cases were selected by the writer from the Mental Institute files during the summer and fall of 1955. Throughout the University winter term of 1955-56 all 35 tests were reviewed under the Supervision of Dr. Donald Spearman, with re-checking and re-scoring where necessary in the interests of uniformity.

The members of this group all were white males of Canadian birth, ranging in age from 17 to 34 years. None had record of previous admission to a mental hospital. The mean educational level was Grade VIII. On the Wechsler-Bellevue Test (Form I) their mean I.Q. was 103. Each man had taken both the Wechsler-Bellevue and Rorschach tests. Upon return to court after being pronounced mentally competent, each was found guilty and sentenced. The 35 men were convicted of a total of 37 offences. In Table V these offences are listed in the order of their frequency, according to the act committed.

Table V.Offences Committed by the Experimental Group (N. 35)

<u>Charge.</u>	<u>No.</u>
Sexual Offences.	
Contributing to Juv. Delinquency..	5
Indecent Act.....	4
Gross Indecency.....	2
Indecent Assault.....	<u>1</u>
Total	12
Property Offences.	
Theft.....	7
False Pretences.....	2
Forgery.....	<u>1</u>
Total.....	10
Miscellaneous Offences.	
Causing Disturbance.....	2
Unlawful Possession of Firearms...	1
Vagrancy.....	1
Intoxication.....	1
Public Mischief.....	1
Non-Support.....	1
Failing to Provide for Child.....	<u>1</u>
Total.....	8
Offences with personal Violence.	
Assault.....	2
Wounding.....	1
Manslaughter.....	1
Attempted Suicide.....	1
Shooting with intent.....	1
Threats.....	<u>1</u>
Total.....	7
Gross Total.....	37

Selection of the Normal Group.

Wedemeyer's normal group (59) was chosen for comparison with the experimental group. This study of "The Rorschach Statistics on a Group of 136 Normal Men" was selected because of the possibilities it offered for satisfactory matching. These men were a homogeneous group, all being U.S.Navy personnel below the rank of Chief Petty Officer. The naval rating of the subjects was,

Seaman, Apprentice.....	21
Seaman.....	40
Petty Officer III Class.....	23
Petty Officer II Class.....	21
Petty Officer I Class.....	17
No Data Available.....	<u>14</u>
Total.....	136.

These men were normal "in the sense that they functioned in society and had no mental illness requiring hospitalization". They were "naval volunteers who had chosen a sheltered life, relatively free from responsibility". They impressed Wedemeyer as "passive, apathetic, lacking initiative and drive. They showed a lack of motivation on the tests. Not being interested, they did the minimum required of them." The foregoing description suggests a qualitative similarity between this group of sailors and the experimental group. The results of inter-group matching are indicated in Table VI (p. 41), in which figures for the psychopath control group are included as well.

Selection of the Psychopath Group.

In describing the larger prison population from which this group was selected, Cason writes, "Attention may be called to the fact that our original population of 500 subjects probably included a larger number of good cases of psychopaths and excellent cases of extreme, aggressive, criminal psychopaths than have ever been brought together before within the walls of a single institution."¹ From amongst this group of U.S. Federal prisoners Geil gathered his subjects for the study of "The Similarity in Rorschach Patterns of Adult Criminal Psychopaths and Pre-Adolescent Boys." Geil (17) describes the manner in which his cases were selected as follows:

The group of 50 psychopaths used for this study was selected from the Psychopaths' unit of the Medical Center (for Federal Prisoners, Springfield, Missouri) where approximately 200 of the most troublesome offenders in the Federal Prison System are quartered. The neuropsychiatric staff took particular care in selecting these subjects, to exclude all who gave a clinical impression of defective intelligence, neurosis or psychosis. There was a complete agreement concerning the diagnosis of psychopathic personality in all cases retained for this study.

Geil used his group originally in a comparison with pre-adolescent boys. For this reason as well as because it appears to be as truly a psychopathic group as may be found. Geil's group was selected for comparison with the experimental group. How the experimental, normal and psychopath groups match is shown in Table VI (p. 41).

1. Cason, op. cit., p. 213.

Table VI.Matching the Experimental, Normal and Psychopath Groups.

Aspect	Experimental Group.	Normal Group.	Psychopath Group.
N.	35	136	50
Sex	M.	M.	M.
Age m.	24.94	23.7	21 - 11 mo.
S.D.	4.59	3.92	
Range	17-34	19-28	16-32
I.Q. m.	102.97	"Middle portion of mental intelligence range on N. G. C. T." ¹	99.5
Range	69-127		70-131
Educ. m.	8.3	"Naval ratings below C.P.O" So presumably below university level.	Not known.

-
1. In Educational Psychology, Cronbach (p. 194) notes that an A.G.C.T. score of 140 is about equal to an I.Q. of 132.

Selection of the Immature Group.

Stavrianos has provided data for a group of 67 pre-adolescent boys. These boys were tested in "An Investigation of Sex Differences as Revealed by the Rorschach Method."¹ The boys ranged in age from 5 to 11 years, with a mean age of 8 years. They were from two schools in Northampton, Mass. Some of the boys had been given intelligence tests. The remainder were given teachers' ratings. All were judged to be of at least average intelligence. These are the boys that Geil compared with his group, finding that "adult criminal psychopaths respond to the Rorschach blots in a way which closely approximates that found to be characteristic at a pre-adolescent stage of personality development."²

The only matching thought necessary in comparing Stavrianos' pre-adolescents with the experimental group was that of sex and general intelligence level. Otherwise the intention was to provide a group that did not match the experimental group. As, with adolescence, the personality trends of maturity emerge, immaturity was made certain by selecting a clearly pre-adolescent population.

Statistical Procedures.

Two different statistical procedures were employed in testing the three hypotheses. In comparing the experimental and normal groups,

1. Bertha Stavrianos, "An Investigation of Sex Differences in Children as Revealed by Rorschach Methods", Ror. Res. Exch., 6, 1942, pp. 168-175.
2. G.A. Geil, "The Similarity in Rorschach Patterns of Adult Criminal Psychopaths and Pre-Adolescent Boys", Ror. Res. Exch., 9, 1945, 201-207

the t - test technique was followed.¹ This test was applied to results for the various Rorschach categories. Employing the null hypothesis, the significant differences between these two groups were estimated.² For the psychopath and immature control groups, however, standard deviations were not available, Geil and Stavrianos having done their work in terms of percentages. This necessitated finding a suitable method of establishing the significance of differences which would be comparable to the t-technique. A satisfactory method was believed found in P. O. Johnson's inverse sine transformation as set forth in his Statistical Methods in Research.³ This procedure for comparing the difference between percentages reduces the latter to proportions and

-
1. The t-formula is discussed in Lindquist, First Course in Statistics, (37) the tables being at p. 87. The formula as used is simplified by Dr. D. E. Smith of the Department of Psychology of the University of Alberta to read as follows:

$$t = \frac{M_1 - M_2}{\sqrt{\left(\frac{N_1 s_1^2 + N_2 s_2^2}{N_1 + N_2 - 2} \right) \left(\frac{N_1 + N_2}{N_1 N_2} \right)}}$$

2. The 5% level of confidence was taken as significant, the 2% level more significant and the 1% level very significant.
3. See pp. 164-5.

by the inverse sine transformation establishes a basis for comparison.¹

Interpretative Procedures.

The test findings with each group are reduced to means and percentages and portrayed in Rorschach psychograms, with the resultant interpretative ratios and accompanying data. By inspection of these profiles and ratios, by quantitative comparisons and qualitative interpretations in terms of customary Rorschach clinical criteria, further indications are sought as to the similarities and differences between the experimental and control groups. The Rorschach method used is that of Klopfer. In some instances with the normal group, however, Beck scores were used as well. Where this occurred, comparisons have been made where possible.

In using the Rorschach test for such group comparisons, it has been kept in mind that this test is better suited to the appreciation and

1. Johnson (p. 165) says "Thus, the difference between two percentages, P_1 and P_2 would become

$$d = 100 \left(\sin^{-1} \sqrt{\frac{P_1}{100}} - \sin^{-1} \sqrt{\frac{P_2}{100}} \right)$$

$$\text{and } \sigma_d = \sqrt{\frac{821}{N_1} + \frac{821}{N_2}}$$

where N_1 and N_2 are the size of the samples.

Then $X = \frac{d}{\sigma_d}$ is referred to the normal scale"
(Table I of Johnson's appendix).

The theoretical basis of this method is discussed in Walker and Lev's Statistical Inference, (57) in their chapter on "Transformation of Scales" (p. 423 ff).

interpretation of individual uniqueness than to the discovery of group similarities and differences. It is the particular value of the Rorschach test that it facilitates insight into the complexities of the individual personality. The emotional stability, social adjustment and mental competence of each subject are a highly individualized blend. In an investigation of this kind, such general trends as may be discovered in the Rorschach test findings with a group should be interpreted with caution. On the other hand, any group trends that are markedly manifest in the results of a test primarily designed to interpret individuality might be regarded as all the more likely to be significant.

Chapter IV

RESULTS

The discussion of results will be divided into five parts.

Part I is a summary of findings with the experimental group, presented in the form of a statistical table and group psychogram. Part II is a comparative psychogram, in which the Rorschach profiles of all four groups are presented side by side to give a graphic overview of the results. This psychogram necessarily anticipates actual presentation of results with each of the three control groups. This was deemed advantageous, as the psychogram facilitates the comparisons and discussions which follow.

The remaining three parts will deal with each of the hypotheses in turn. Accordingly, Part III will give an evaluation of the validity of the first hypothesis, that Rorschach test findings with the experimental group will differ significantly from normal Rorschach "expectancies" and from the test findings with a normal group. After discussing the relationship of the experimental group findings to normal expectancies, comparisons will be made with the normal control group.

Part IV will examine the validity of the second hypothesis, that Rorschach test findings with the experimental group will reveal characteristics generally attributed to psychopaths and specifically found in a selected psychopath group. After discussing the characteristics of

the experimental group in terms of some suggested criteria of psychopathy, comparisons will be made with the psychopath control group.

Part V will be an evaluation of the third hypothesis, that Rorschach test findings with the experimental group will show characteristics of immaturity in accordance with Rorschach findings with pre-adolescents generally and in accordance with test findings with a selected group of pre-adolescent boys. After the experimental group findings have been reviewed in the light of certain suggested general criteria of immaturity, comparisons will be made with the immature control group.

Part I.Rorschach Test Findings With The Experimental Group.Table VII.FINDINGS WITH THE EXPERIMENTAL GROUP. (N:35)

Category.	Total No. Responses	Mean	S.D.	%
R	809	23.11	16.76	100.00
<u>Locations</u>				
W	326	9.31	5.10	40.28
D	357	10.20	10.06	44.12
d	36	1.02	1.57	4.44
D/d	393	11.23	11.22	48.56
Dd	75	2.14	3.03	9.27
S	15	.42	1.02	1.85
Dd&S	90	2.57	3.58	11.12
<u>Determinants</u>				
M	63	1.80	1.37	7.78
FM	79	2.25	2.19	9.76
m	21	.60	.83	2.59
k	28	.80	1.83	3.46
K	5	.14	.52	.62
K&k	33	.94	1.80	4.08
FK	17	.48	.91	2.10
F	483	13.80	9.92	59.70
Fc	46	1.31	1.73	5.68

Table VII (Cont.)

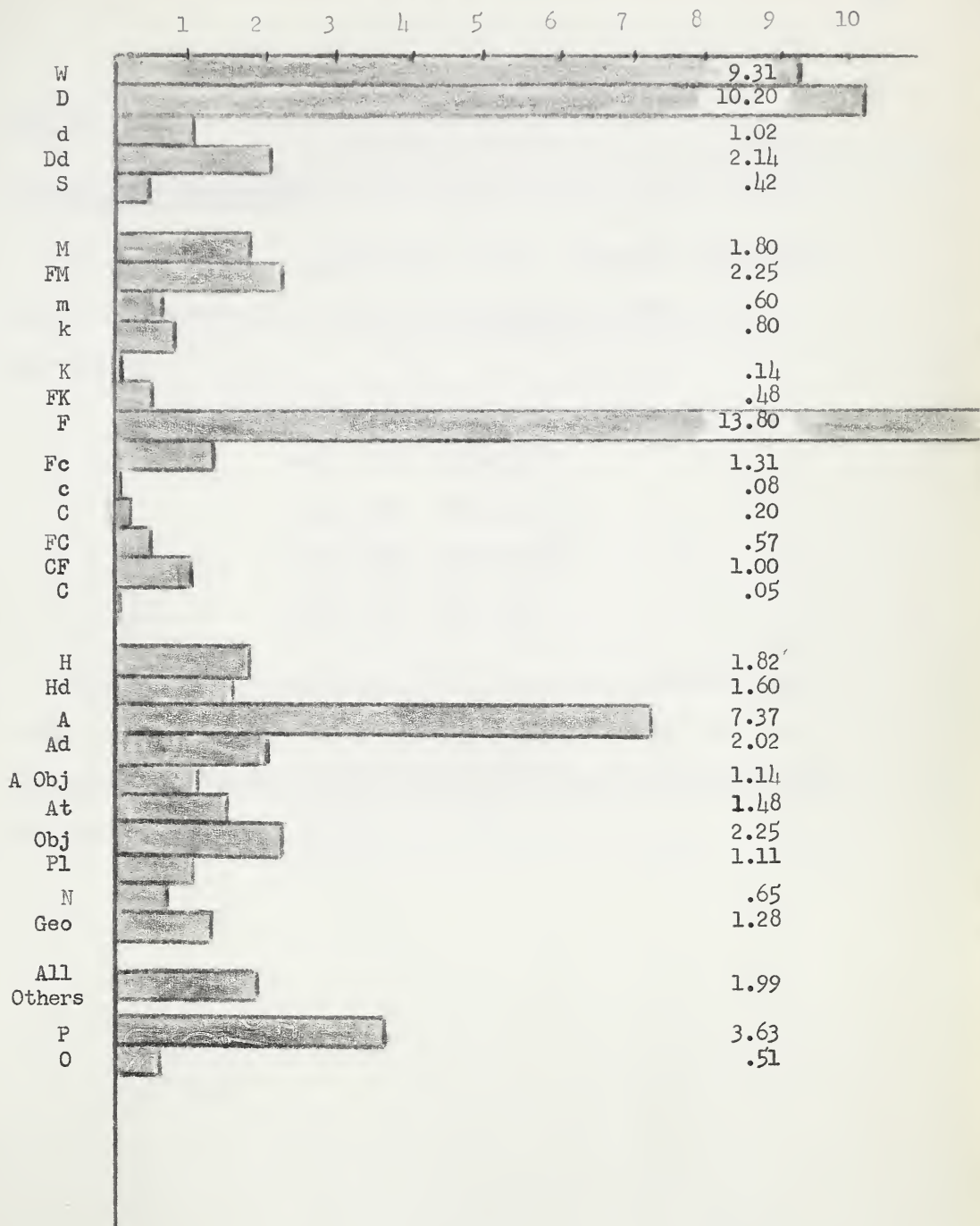
Category	Total No. Responses	Mean	S.D.	%
c	3	.08	.88	.37
Fc&c	49	1.40	1.90	6.05
C'	7	.20	.52	.86
FC	20	.57	1.04	2.47
CF	35	1.00	1.52	4.32
C	2	.05	.31	.24
<u>Content</u>				
H	64	1.82	1.44	7.91
Hd	56	1.60	2.06	6.92
A	258	7.37	4.06	31.89
Ad	71	2.02	2.70	8.78
Aobj	40	1.14	.95	4.94
At	52	1.48	2.70	6.43
Obj	79	2.25	3.69	9.76
Pl	39	1.11	1.42	4.82
N.	23	.65	1.06	2.84
Geo	45	1.28	1.79	5.56
Art	23	.65	1.11	2.84
Emblem	14	.40	.80	1.73
Explos	11	.31	1.05	1.36
All others (14 Categories, each less than 1%)	34	2.42		4.23

Table VII (Cont.)Relationships

Av.R.T. I,IV,V,VI,VII	20.23"
Av.R.T. II,III,VIII,IX,X	20.23"
$\frac{\text{Total F}}{\text{R}} =$	59.70 (F%)
$\frac{\text{FK/Fc}}{\text{R}} =$	67.48 (%)
$\frac{\text{A \& Ad}}{\text{R}} =$	40.67 (A%)
Total No. of P	127
Mean No. of P	3.63
Form Level: preponderantly a mediocre F to F ₇	
(H & A) : (Hd & Ad)	39.80:15.70 (%)
Sum C	5.91 % 1.36 (Mean)
M:Sum C	7.78 : 5.91 (%) or 1.80 : 1.36 (Mean)
(FM & m) : (Fc & c & C')	12.35 : 6.91 (%)
No. of Responses to VIII,IX,X	36.94 %
W:M	40.28 : 7.78 (%) 9.31 : 1.80 (Mean)
Succession	Loose
Approach	W% 40.28 D% 44.12 d% 4.44 Dd&S% 11.12
Rejections	
I 2	VI 5
II 2	VII 4
III 1	VIII 0
IV 1	IX 3
V 2	X 3
Total Rejections	23
Mean	.65
Mean No. of Content Categories	8

PLATE I.
EXPERIMENTAL GROUP .
Mean Scores.

51



Part II

A Comparative Psychogram.

Findings with the experimental, normal, psychopath and immature groups are presented in a composite psychogram in terms of percentages.

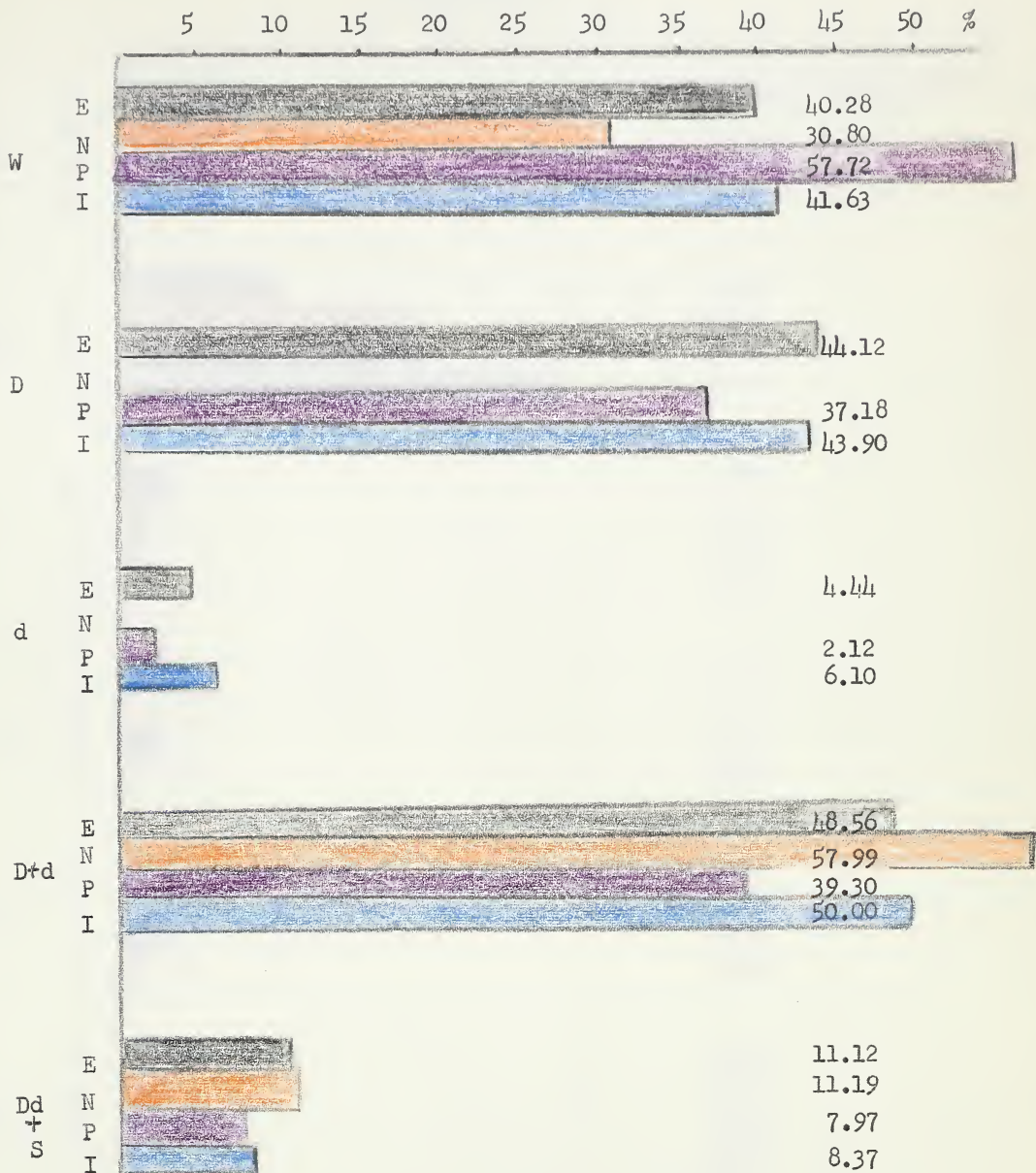
Plate II . Locations.

Plate IIIA. Determinants.

Plate IIIB. Determinants.

Plate IV . Content.

Although the statistical data for the normal, psychopath and immature groups appears in sections subsequent to this one, the psychogram is included at this point to facilitate inter-group study and comparison.

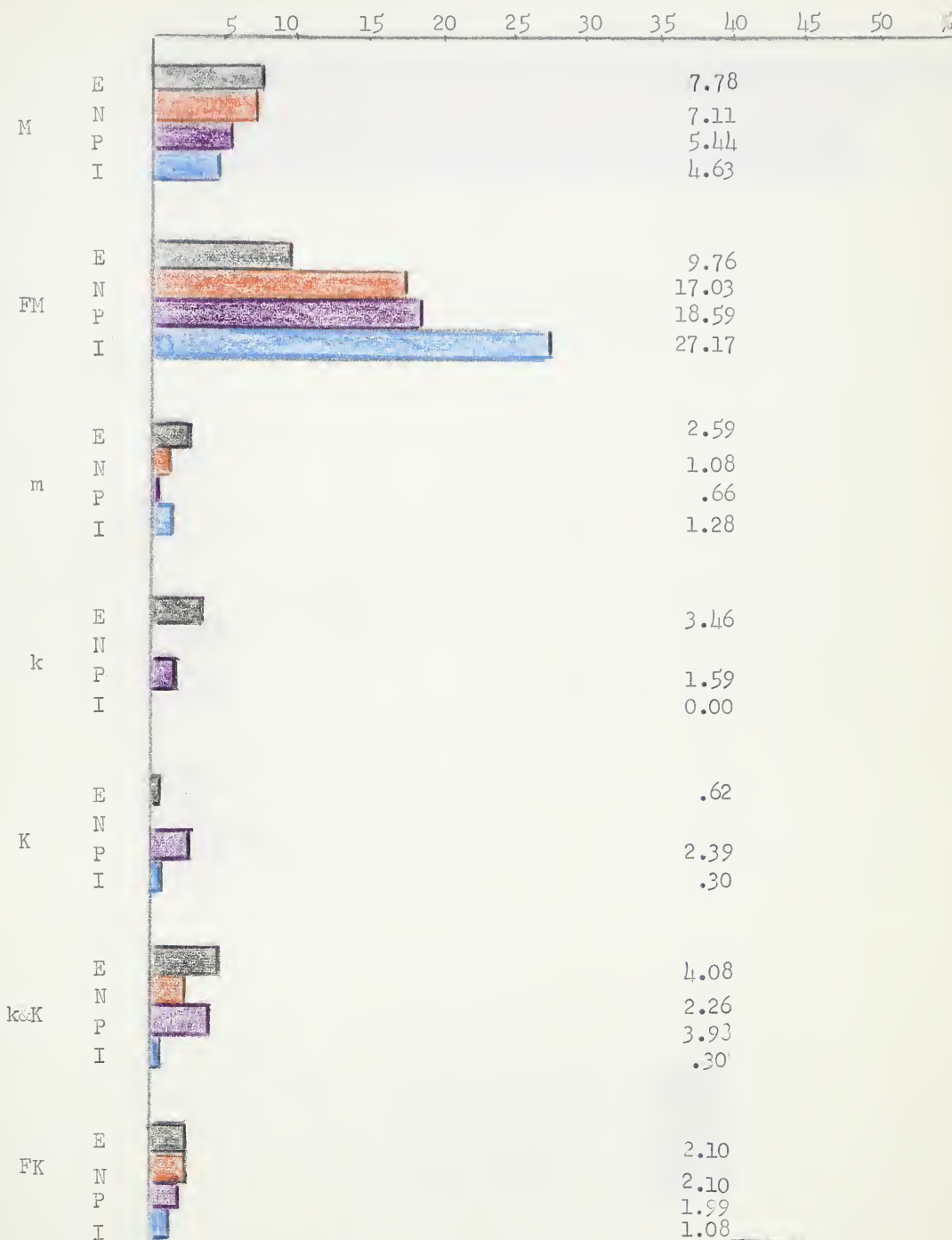


KEY:

Experimental Group
Normal Group
Psychopath Group
Immature Group



PLATE III A
Determinants .

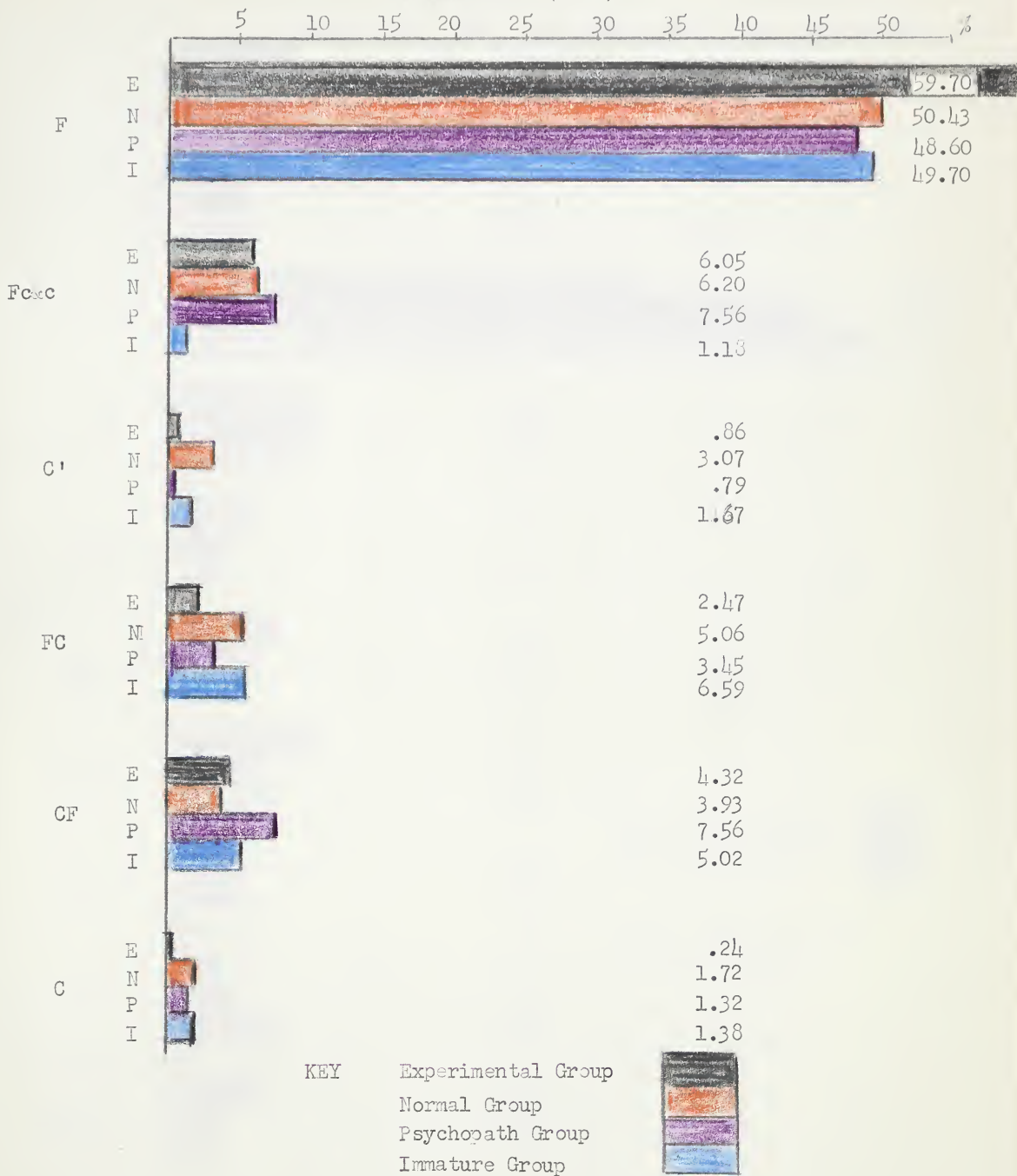


KEY.

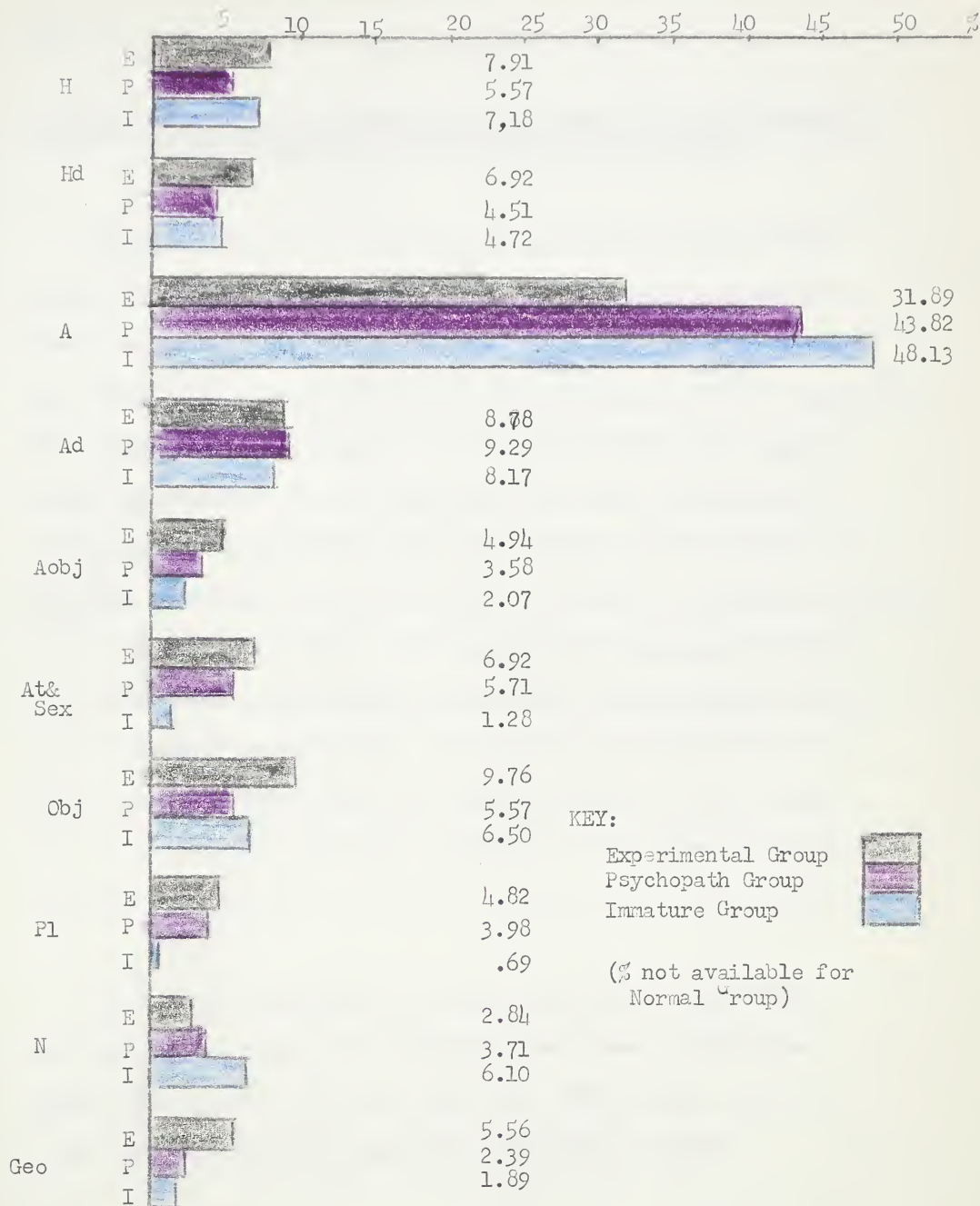
Experimental Group
Normal Group
Psychopath Group
Immature Group.



PLATE III B.
DETERMINANTS (Cont).



CONTENT.



Part III.A Discussion of the Experimental Group in Terms of Normal Expectancies and Comparison with the Normal Control Group.

Hypothesis I (A) is that test findings with the experimental group will differ significantly from normal Rorschach expectancies. These results are obtained by comparing group findings in Table VII, (pp. 48-50) with the normal Rorschach expectancies of Table I (pp.10-11). The experimental group's mean R of 23.11 falls within the range of normal expectancies. In the locations, W is higher than Klopfer's criteria, but by about the same amount as are the other groups. In the other locations, scores fall within the range of normal expectancies. In determinants and content, the experimental group appears to produce just another set of normal scores, not varying greatly from the general trend of expectancies. The firmest conclusion that can be drawn from this comparison is that there is no way of proving significant variations from normal expectancies when these latter are so indeterminate.

It is in the examination of ratios and relationships within the experimental group that variations from normal expectancies appear. The excess of FM over M (M 1.80 : FM 2.25) may indicate a degree of uncontrolled impulsivity not usually regarded

as normal. The smallness of both these scores however, makes such an interpretation rather speculative.¹ F% also is high in relation to other scores, possibly indicating "a limited or impoverished type of perception."² The predominance of CF / C over FC may indicate "weak control over emotionality"³ with a tendency towards overt action. In keeping with the preponderance of FM over M, the excess of A% over H% may indicate an other-than-normal outlook on life,⁴ perhaps immaturity. The Form Level of the experimental group appears to be normal in the sense that it is mediocre, but rather below the form level of normal groups.⁵ The W : M ratio of 9.31 : 1.80 is far in excess of the desirable 2:1. This suggests a level of aspiration far in excess of capacity. The great disparity of W:M again raises the question of immaturity.⁶ Because of the foregoing considerations, it appears reasonable to say, regarding the first part of the hypothesis, that findings with the experimental group do deviate significantly from normal expectancies at a number of points.

1. B.Klopfer, M.D.Ainsworth et. al., Developments in the Rorschach Technique, New York, World Book Co., 1954, Vol. I, pp. 288-289.
2. Ibid., p. 270
3. Ibid., p. 297
4. Ibid., pp. 314, 359.
5. See Table I.
6. Klopfer and Ainsworth, op. cit., pp. 302-303.

Hypothesis I (b) is that test findings with the experimental group will differ significantly from findings with a selected normal group. The results of comparison by means of the t-score formula (Table VIII) show many significant differences. R, W, M, m, K&k, F, H, Hd, A, At, Obj and Geo all differ at the 1% level of confidence while D&d differs at the 2% level and S, Fc& c and CF differ at the 5% level.

It is evident that the differences between the experimental and control groups are many and at a high level of confidence. The experimental group not only varies from normal expectancies but also is significantly different at many points from a specific normal group.

Part IV.

A Discussion of the Experimental Group in Terms of Psychopathic Criteria and Comparison with the Psychopath Control Group.

Hypothesis II (a) is "that the Rorschach test findings with the experimental group will reveal characteristics generally attributed to character disorder types referred to in some classifications as psychopath." The objective, then, is not necessarily to prove that the experimental group is psychopathic, but to search for evidence of characteristics generally attributed to psychopaths. Harrower-Erickson observed that in comparing the composite graphs of psychopathic personalities with other groups, "all normal ratios are reversed". CF \neq C is found to be greater than FC, FM exceeds M and c is larger than Fc. With our experimental group, the first two of these criteria apply,

Table VIII.

Critical Ratios for the Experimental Group (N=35)
and Wedemeyer's Normal Group (N=136)

<u>EXPERIMENTAL GROUP. (N:35)</u>			<u>NORMAL GROUP (N:136)</u>		
Cate- gory.	Mean	S.D.	Mean	S.D.	C.R.
R	23.11	16.76	13.65	6.70	4.87*
<u>Locations</u>					
W	9.31	5.10	4.20	2.61	7.74*
D	10.20	10.06			
d.	1.02	1.57			
D/d	11.23	11.22	7.92	5.27	2.39**
Dd.	2.14	3.03	1.37	1.62	1.92
S	.42	1.02	.16	.54	2.00***
<u>Determinants.</u>					
M	1.80	1.37	.97	1.08	3.60*
FM	2.25	2.19	2.32	1.78	.18
m	.60	.83	.15	.54	3.75*
k	.80	1.83			
K	.14	.52			
K&k	.94	1.80	.31	.56	3.31*
FK	.48	.91	.29	.64	1.35
F	13.8	9.92	6.88	4.35	5.81*
Fc	1.31	1.73			
c.	.08	.88			

Table VIII (Cont.)

Category.	<u>EXPERIMENTAL GROUP. (N:35)</u>		<u>NORMAL GROUP (N:136)</u>		
	Mean	S.D.	Mean	S.D.	C.R.
Fc&c	1.40	1.90	.85	.94	2.29***
C'	.20	.52	.42	.73	1.57
FC.	.57	1.04	.69	1.00	.60
CF.	1.00	1.52	.54	.83	2.30***
C.	.05	.31	.23	.73	1.12
<u>Content</u>					
H.	1.82	1.44	1.15	1.15	2.75*
Hd.	1.60	2.06	.85	1.28	2.96*
A.	7.37	4.06	5.60	2.72	2.89*
Ad.	2.02	2.70	1.39	1.88	1.51
At.	1.48	2.70	.68	1.08	2.58*
Obj.	2.25	3.69	.35	.68	5.43*
Pl.	1.11	1.42	.94	1.26	.69
N.	.65	1.06	.37	.69	1.79
Geo.	1.28	1.79	.39	.86	3.97*

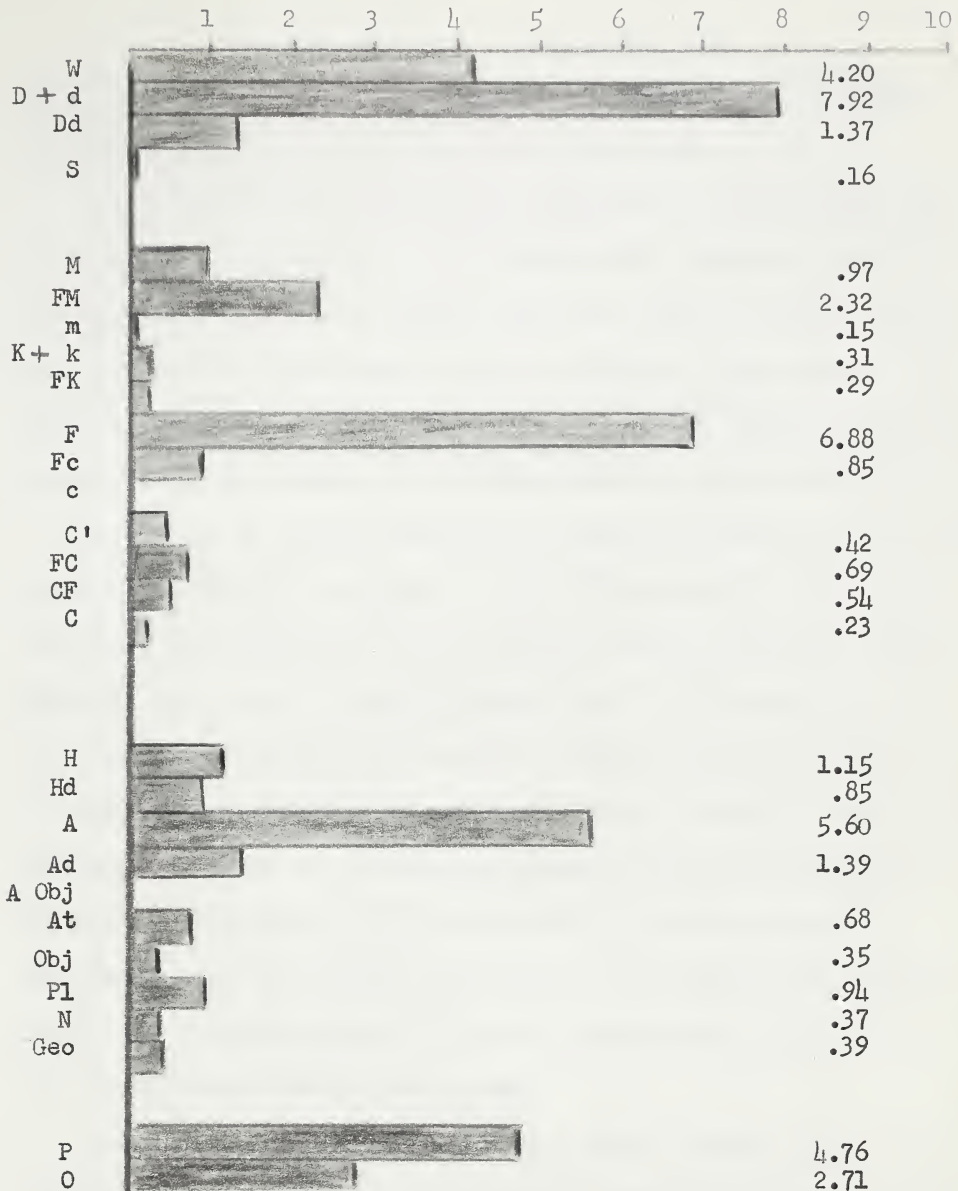
* at the .01 or 1% level of confidence.

** at the .02 or 2% level of confidence.

*** at the .05 or 5% level of confidence.

PLATE V.
NORMAL GROUP .
Mean Scores.

62



as $CF \neq C : FC$ is 1.05 : .57, and $FM : M$ is 2.25: 1.80. The third relationship does not hold, as $c:Fc$ is .08 : 1.31.

Kuhn regards three criteria as conditional to psychopathy. The first is that intelligence is not deteriorated. While the mean I.Q. of the experimental group is 102.97, there is a range of 69-127, indicating that deteriorated intelligence may be a feature of some cases. Kuhn's second pre-requisite is that there are no definite diagnostic psychotic indications. The members of the experimental group were selected from a larger group of persons diagnosed as mentally competent and hence non-psychotic. The third criterion is that the character is distinctly abnormal. As abnormality is not a clearly defined category, nothing definite can be said, although abnormal must be the word to use in describing some members of the group. Otherwise what is it that the various abnormalities in the Rorschach findings reflect? Kuhn suggests further that there is a correlation between social deviation and S responses. This appears to be another way of stating Klopfer's hypothesis that "S responses are related to an oppositional tendency in the intellectual sphere."¹ With the experimental group, however, S is a very small factor, being 1.85%.

Phillips and Smith think that the presence and quality of c and C' responses are indicative of psychopathy,² speaking of "rough and grainy c" and "inappropriate C' ". Neither of these determinants are present in any quantity. c is .37% and C' is .86% of the total. They also

1. Klopfer and Ainsworth, op. cit., pp. 310-11.

2. Phillips and Smith, op. cit., p. 96 and 101.

mention "psychopathic content", e.g. blood, objects of violence, visceral anatomy, etc. These do have a very small representation throughout the group, but not large enough to have significance in more than a few cases. Phillips and Smith also mention serious disturbance of the ratio M: Sum C.¹ Malinger, too, is taken as one of the indications of the psychopath.² This is said to take the form of rejections and poverty of response. While one subject did give only 3 responses, the mean for the group was 23.11, and the total number of rejections was 23.

Bochner and Halpern note that the psychopath's apparent emotional superficiality should be reflected in Rorschach test performance. They also mention the tendency to identify with more primitive forms of life.³ These features might be contributing causes to scores and relationships already noted in the experimental group findings: that CF plus C exceed FC, that FM is greater than M, high F, high A and a summation of content categories which might be designated "primitive".

In summing up this evidence, the best that can be said is that the presence of psychopathic attributes has not been proven, nor has it been disproven. Characteristics that could indicate psychopathy are to be found, but the evidence is far from conclusive. With so many contradictory signs, it might be more realistic to look for another

1. Ibid., p.84

2. Ibid., p. 183

3. Bochner and Halpern, op. cit., p. 192 ff.

explanation of the signs that have seemed to point to psychopathy.

Hypothesis II (b) is that Rorschach test findings with the experimental group will reveal characteristics specifically found in a psychopath group. Kuhn, Walters and Lindner all express their lack of confidence in this method of group comparisons. Kuhn terms it "entirely inadequate". The real reason for making such a comparison, though, is not because it is believed adequate, but because its results may afford some small measure of evidence helpful in further investigation.

Table IX.

Comparison of the
Experimental Group (N=35) and Geil's Psychopath Group (N=50)¹

Category.	<u>EXPERIMENTAL GROUP</u>		<u>PSYCHOPATH GROUP</u>		
	Mean	%	Mean	%	X-Score
<u>Location</u>					
W.	9.31	40.28	7.94	52.72	1.99**
D.	10.20	44.12	5.60	37.18	1.12
d	1.02	4.44	.32	2.12	1.04
Dd	2.14	9.27	1.10	7.31	.57
S	.42	1.85	.10	.66	.87
Dd & S	2.57	11.12	1.20	7.97	
<u>Determinants</u>					
M	1.80	7.78	.82	5.44	.759
FM	2.25	9.76	2.80	18.59	2.04**
m	.60	2.59	.10	.66	1.267
k	.80	3.46	.24	1.59	.649
K	.14	.62	.36	2.39	1.188
FK	.48	2.10	.30	1.99	.063
F	13.80	59.70	7.32	48.60	1.77***
Fc	1.31	5.68	1.08	7.17	.475
c	.08	.37	.06	.39	.016
C'	.20	.86	.12	.79	.079
FC	.57	2.47	.52	3.45	.459
CF	1.00	4.32	1.14	7.56	1.09

Table IX (Cont.)

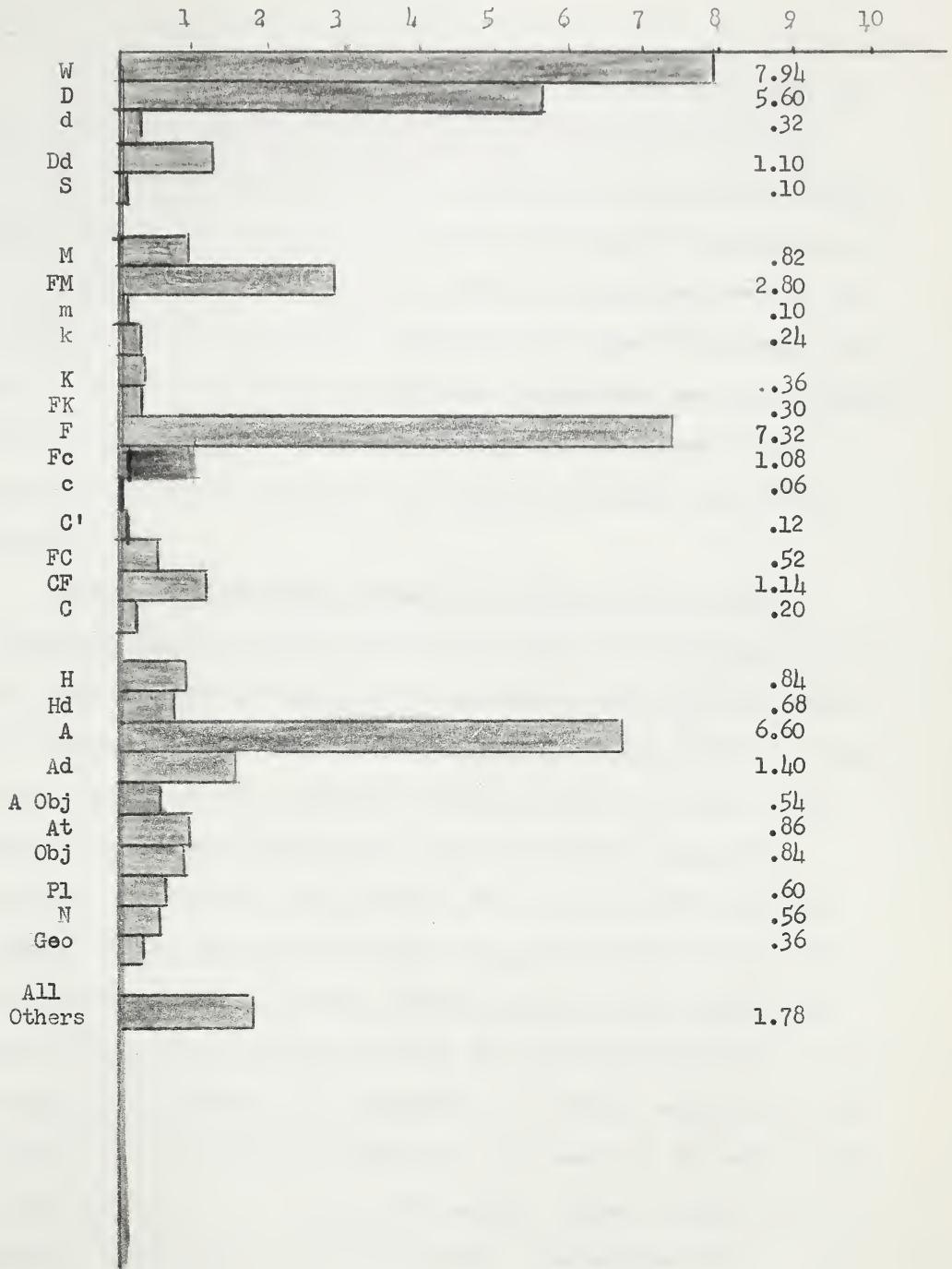
Cate- gory	Mean	%	Mean	%	X-Score
C	.05	.24	.20	1.32	1.045
<u>Content</u>					
H	1.82	7.91	.84	5.57	.743
Hd	1.60	6.92	.68	4.51	.84
A	7.37	31.89	6.60	43.82	1.96**
Ad	2.02	8.78	1.40	9.29	.142
Aobj	1.14	4.94	.54	3.58	.538
At.&Sex	1.59	6.92	.86	5.71	.412
A At			.36	2.39	
Obj	2.25	9.76	.84	5.57	1.25
Pl	1.11	4.82	.60	3.98	.348
N.	.65	2.84	.56	3.71	.396
Geo.	1.28	5.56	.36	2.39	1.31
Food	.08	.37	.10	.66	.316
Clouds	.14	.62	.34	2.25	1.125
Blood	.08	.37	.02	.13	.39
Fire	.08	.37	.10	.66	.316
Mask	.03	.12	.08	.53	.618
Others		7.78	.78	5.16	.824

1. Using Johnson's method of Inverse Sine Transformation (Page 44)

- * Significant at the .01 or 1% level of confidence.
 ** Significant at the .03 or 3% level of confidence.
 *** Significant at the .05 or 5% level of confidence.

PLATE VI.
PSYCHOPATH GROUP .
Mean Scores.

68



The first impression from an inspection of Table IX is that, in all but a few categories, there is not any significant difference between the Rorschach scores of the experimental and psychopath groups. Where significant differences are found, the level of confidence is not high, never being better than 3%. It will be noted, however, that the categories showing significant differences are some of the larger ones: W, FM, F and A. The method of statistical comparison used here (Johnson's inverse sine transformation) was adopted after the Fisher \bar{z} score formula to arrive at Pearson r was found to be invalid for smaller scores.

Results with the Fisher formula (see Appendix H) are quite different from the Johnson results where small scores are being treated. The same categories, though, which registered significant differences by Johnson's formula stand out uniquely in the Fisher results as being very significant. Now the Fisher formula is valid for large scores. Where such are being dealt with, Fisher and Johnson agree. This includes the positive results with W, FM, F and A and the negative results with D. Thus, the inference that, on the basis of all other categories than W, FM, F and A the two groups are not significantly different is not necessarily correct. The apparent similarity is based mainly on the outcome of the comparison of smaller scores. With four large scores indicating dissimilarity, the results of the small-score comparisons are to be regarded with reserve. Indeed, evidence in support of the second hypothesis is quite inconclusive. The experimental group is maladjusted and non-normal but not necessarily psychopathic.

Part V.A Discussion of the Experimental Group in Terms of Immaturity and Comparison with the Immature Control Group.

Hypothesis III (a) is that the Rorschach test findings with the experimental group will show characteristics of immaturity in accordance with Rorschach findings with pre-adolescents generally. This is not a good hypothesis. An examination of its weaknesses is necessary to a proper presentation of the test results. There are two underlying misconceptions. The first is that the responses of adults and children can be interpreted in the same way. Paulsen says "What becomes pathological later may be normal in a six-year-old." Klopfer and Margulies observe that "Some of the reaction patterns found in adults in pathological cases only are produced in young children normally and to such extent that we gain new insight into the dynamics which produce such patterns." In dealing with children's Rorschach responses the basis of interpretation shifts. What means one thing in an adult means something else in a child. The second misconception is that of immaturity or pre-adolescence. There is no unit immature character. In her "Summary", Ames

1. Ames, op.cit., p.285 ff.

states that "It seems probable that maturity factors affecting the Rorschach performance are so strong and so rapidly changing in the child that during the first ten, possibly during the first twenty, years of life, developmental status may be revealed more clearly than is individual personality structure."¹ In speaking of age changes, Ames says further that "Probably the most conspicuous finding of the present study is that the total Rorschach picture at each age level - that is the individuality of the generic subject at any given age as revealed by the Rorschach - has a unique and distinctive characteristicness which sets it apart from every other age level."² The age changes throughout childhood are varied and continuous, giving a picture of kaleidoscopic variability rather than that of a unit character that may be labelled pre-adolescent or immature. Some of these trends, and their direction, have been indicated in the Survey of the Literature.

Are there any criteria left that may be taken as marks of immaturity? It would appear valid to compare the experimental group findings with pre-adolescent trends as these are illustrated in Tables III and IV. In number of responses the experimental group is in a

1. Ames, op. cit., p. 285

2. Ibid., p. 289

normal range for adults,¹ with a mean of 23.11. Pre-adolescent children have achieved a similar R. The location scores of the experimental group fall within normal ranges for adults. The trend with children appears to be a gradual increase in these scores until maturity. Among the determinants, the fact that M exceeds Sum C (7.78:5.91) suggests an introversive trend. Ames² states that the experience balance first becomes introversive at the age of 10. This leaves no stable basis for comparison. The preponderance of CF \neq C over FC might be interpreted as evidence of impulsiveness and uncontrolled emotion and hence "immature". The preponderance of FM over M might also be taken for an immature way of looking at life. The high A score would agree with the hypothesis of immaturity, especially in its relationship to H. The F% of 59.70 and the mediocre form level do not suggest immaturity. The small number of Populars might indicate the inexperience of immaturity.

In dealing with an individual case, where the content of the subject's responses will reveal his own unique personality trends, the examiner may be able to establish meaningful resemblances, not only to immaturity in general, but to a particular level of development. To attempt this with a group of adults is impossible. All that can be done is to make a few conditional conjectures of the kind just attempted. Some of the trends just mentioned could be parts of immature personality patterns. They are not, however, distinctive and unique evidences of immaturity.

1. Table I p. 10

2. Ames, op. cit., p. 294.

Hypothesis III (b) is that Rorschach test findings with the experimental group will show characteristics of immaturity in accordance with the test findings with a group of immature (pre-adolescent) boys." The results of this comparison are given in Table X.

Inspection of this statistical comparison reveals significant differences in only a few categories. Location scores show no great differences. Amongst determinants the immature group varied significantly by producing no k. Fc difference at the 2% level of confidence shows the experimental group far in excess of the immature. F% with the experimental group is 10% higher than with the immatures. The immature group registered significantly larger FC% than the experimental. With content categories At.& Sex, Pl. and Geo. the experimental group exceeded the immature score significantly. The immature A score was significantly the greater.

With the immature group the ratio of FC:CF/C is 6.59:6.40, which indicates better control and less undifferentiated impulsivity than the experimental group's 2.47:4.56. With the boys FM exceeds M by 27.17:4.63, which is more unbalanced and possibly more "immature" than the experimental group's FM:M ratio of 9.76:7.78. The boys' W:M ratio of 41.63:4.63 is even more pronounced than the experimental group's 40.28:7.78 in its presumed indication of excessive aspirations, unsupported by performance. M:Sum C for the boys is 4.63:10.38, indicating that they are extratensive as compared with the experimental group's introversive 7.78:5.91.

Thus, although the significant differences between categories are not numerous, a consideration of interpretative relationships and ratios shows many points of variance. It would appear that, for this hypothesis, too, we are left with no clear-cut conclusion. The best that may be claimed is partial confirmation.

Table X.

Comparison of the
Experimental Group (N=35) with Stavrianos' Immature Group (N=67)¹

	<u>EXPERIMENTAL GROUP</u>		<u>PRE-ADOLESCENT BOYS</u>		
	Cate- gory	Mean	%	Mean	% X-Score
<u>Location</u>					
	W	9.31	40.28	6.31	41.63 .251
	D	10.20	44.12	6.66	43.90 .0502
	d	1.02	4.44	.93	6.10 .636
	Dd	2.14	9.27	1.04	6.89 .737
	S	.42	1.85	.22	1.48 .251
<u>Determinants</u>					
	M	1.80	7.78	.70	4.63 1.105
	FM	2.25	9.76	4.12	27.17 .386
	m	.60	2.59	.19	1.28 .804
	k	.80	3.46	.00	.00 3.13*
	K	.14	.62	.04	.30 .418
	FK	.48	2.10	.16	1.08 .686
	F	13.80	59.70	7.54	49.70 1.69***
	Fc	1.31	5.68	.18	1.18 2.19**
	c	.08	.37	.00	.00 1.021
	C'	.20	.86	.25	1.67 .603
	FC	.57	2.47	1.00	6.59 1.708***
	CF	1.00	4.32	.76	5.02 .284
	C	.05	.24	.21	1.38 1.139

Table X. (Cont.)

Cate- gory	Mean	%	Mean	%	X-Score
<u>Content</u>					
H	1.82	7.91	1.09	7.18	.234
Hd	1.60	6.92	.72	4.72	.787
A	7.37	31.89	7.30	48.13	2.814*
Ad	2.02	8.78	1.24	8.17	.167
Aobj	1.14	4.94	.31	2.07	1.34
At&Sex	1.59	6.92	.19	1.28	2.56*
Obj	2.25	9.76	.99	6.50	.988
N	.65	2.84	.93	6.10	1.35
Fl	1.11	4.82	.10	.69	2.32**
Geo	1.28	5.56	.28	1.89	1.65***
Food	.08	.37	.03	.20	.268
Clouds	.14	.62	.06	.39	.284
Blood	.08	.37	.01	.10	.502
Fire	.08	.37	.09	.59	.268
Mask	.03	.12	.01	.10	.0502
Others		7.78	1.58	10.44	.804

1. Using Johnson's method of Inverse Sine Transformation (Page 44)

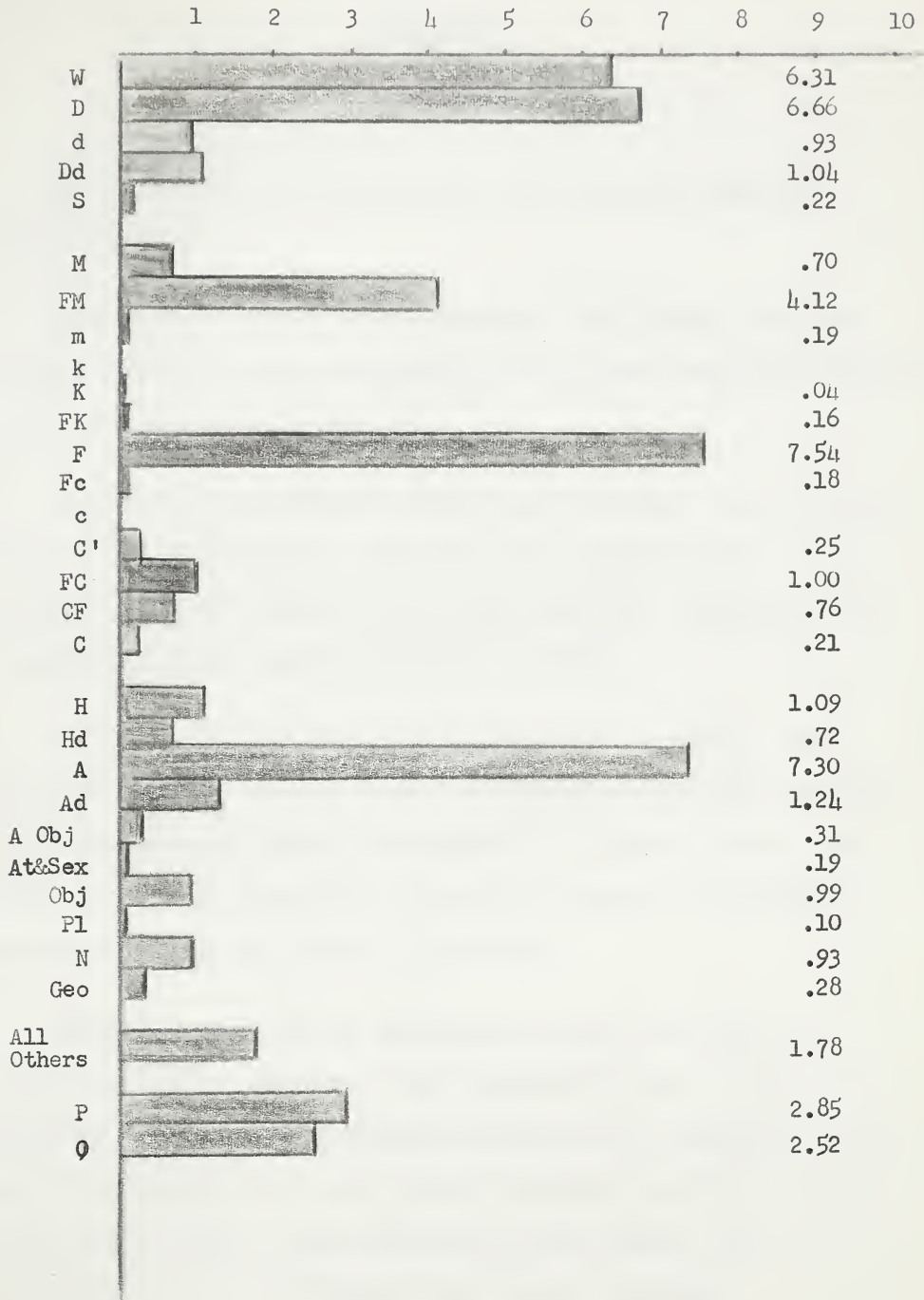
* Significant at the .01 or 1% level of confidence.

** Significant at the .02 or 2% level of confidence.

*** Significant at the .05 or 5% level of confidence.

PLATE VII.
IMMATURE GROUP .
Mean Scores.

77



Chapter V

CONCLUSIONS

As a result of this investigation the following conclusions seem indicated:

Hypothesis I appears to be sustained. Test findings with the experimental group differ significantly from normal Rorschach expectancies and from a normal group.

Hypothesis II is neither confirmed nor disproved. Test findings with the experimental group show some characteristics that could be attributable to psychopaths but not necessarily so. Comparison with a psychopath group brought inconclusive results.

Hypothesis III also was indeterminate in its outcome. The experimental group findings showed some characteristics that could be called immature and showed some similarity to findings with an immature group. The hypothesis of immaturity however did not appear either to be clearly sustained or disproven.

Thus the results of the investigation appear to warrant the conclusion that the members of the experimental group are not normal; that while they show characteristics attributable to psychopaths these may be accounted for by a less drastic hypothesis and that, though the emotional reactions of the experimental group resemble those of some pre-adolescents, the resemblance may be quite incidental.

Chapter VI

RECOMMENDATIONS

In undertaking to diagnose persons of the type represented in the experimental group, the term psychopath should be used with great reserve. The tendency to discard this term as the name for a clinical category¹ perhaps finds its justification in evidence similar to that brought to light by this enquiry. There are very many non-psychotic, non-neurotic persons, mentally competent and not organically afflicted who are maladjusted but are not psychopaths. The currently accepted classification, used for official hospital returns,² does not include psychopath as a clinical category, only mentioning it as an inclusion.

The question recurs: is there not an ultimate condition of maladjustment, non-psychotic, non-neurotic and non-organic but so severe as to merit the term psychopathy? Are not the majority of cases though, better understood when they are seen to fall between the normal and the psychopathic state? Perhaps the diagnosis of "full psychopathy" is implied and included in such categories as antisocial and asocial personality.³ For the majority of maladjustments, however, the more appropriate description would appear to be in terms of some aspect of pathological personality, modified, perhaps, by reference to immature features.

1. Appendices E, F, and G.
2. Dominion Bureau of Statistics, Mental Statistics Handbook, Second Ed., Ottawa, Queen's Printer, 1954, pp. 46-7.
3. Ibid.

To anyone interested in repeating this experiment, the following suggestions are offered:

That similarly constituted experimental groups be used to help establish the characteristics of such persons.

That a study of the content of Rorschach responses of the experimental group be undertaken to throw more light on the thought processes of the individuals under study.

That in a future experiment more attention be centered upon the nature and extent of the experimental group's variation from normal.

That the hypothesis with reference to immaturity be discarded because of the ambiguity of the term immature.

That widely representative normal groups be used in making comparisons with the experimental group.

That the inverse sine method be used with all groups in making comparisons.

APPENDIX. AThe Term Mental Competence

For the purposes of this study the criterion of "mental competence" is that of the considered opinion of the psychiatric, medical and psychological staff of the Provincial Mental Institute, following examination and observation of the patient from all three aspects. The 35 "remands" under study were subjected to this three-fold assessment and pronounced mentally competent to stand trial.

This implies generally an I.Q. of at least the average range (although in some cases a somewhat lowered I.Q. was deemed indicative of sufficient competence.) Discovery of a serious psychotic development or an acute psychoneurosis would indicate an assessment of mental incompetence.

The mentally competent person will, according to Black (4), possess "such a measure of intelligence, understanding, memory and judgment (relative to the particular transaction) as will enable the person to understand the nature of his act."

Thus, a person who, after appropriate examination, is found not to be defective in intelligence, or with functional or organic disease impairing his understanding, memory or judgment is deemed mentally competent and fit to stand trial.

APPENDIX. BSection 16 of The Criminal Code of Canada

- (1) No person shall be convicted of an offence in respect of an act or omission of his part while he is insane.
- (2) For the purposes of this section, a person is insane when he is in a state of natural imbecility or has disease of the mind to an extent that renders him incapable of appreciating the nature and quality of an act or omission or of knowing that the act or omission is wrong.
- (3) A person who has specific delusions, but is in other respects sane, shall not be acquitted on the ground of insanity unless the delusions caused him to believe in the existence of a state of things that, if it existed, would have justified or excused his act or omission.
- (4) Everyone shall, or until the contrary is proved, be presumed to be and have been sane.

APPENDIX. CThe Term Remand.

The term remand (used both as a noun and a verb) is defined by Mozley and Whitely (41) as follows:

Remand is the recommitment of an accused person to prison or his readmission to bail on the adjournment of the hearing of a criminal charge in a police court. The remand, in the case of a person charged with an indictable offence, must not exceed eight days. A remand may be granted for securing the attendance of witnesses, for making enquiry into the previous career of the accused, or other reasonable cause.

The eight day limitation does not hold where mental examination of the accused is contemplated. Here the period of remand may be up to thirty days. See Appendix D.

APPENDIX. D

The Criminal Code of Canada: Excerpt from Section 451.

"Powers of Justice"

451 A justice acting under this Part may

- (c) remand an accused,
 - i. by an order in writing, to such custody as the justice directs for observation for a period not exceeding thirty days where, in his opinion, supported by the evidence of at least one duly qualified medical practitioner, there is reasonable belief that
 - (A) the accused is mentally ill
 - (B) the balance of the mind of the accused is disturbed, where the accused is a female person charged with an offence arising out of the death of her newly-born child or
 - ii. orally, to the custody of a peace officer or other person where the remand is for a period not exceeding three clear days.

See also Sections 526-7 of the Criminal Code of Canada for the Treatment of Prisoners Mentally Ill.

APPENDIX E.

The Classification of the American Psychiatric Association, as revised in 1934, included the following:

11. F. Psychopathic Personality

- (1) With pathological sexuality. (homosexuality etc.)
- (2) With pathological emotionality (emotional instability)
- (3) With asocial or amoral trends. (vagabondage etc.)
- (4) Mixed types.

G. Primary Behaviour disorders.

- (1) Simple maladjustments.
- (2) Primary behaviour disorders in children.

(as quoted in Thorpe and Katz, p. 210 (54)).

APPENDIX. F

During World War II, the U.S.Army developed its own classification, giving somewhat more adequate coverage and clearer differentiations.

CHARACTER AND BEHAVIOR DISORDERS.

A. IMMATURITY REACTION - Category applied to adults who are emotionally immature due either to failure to develop adult patterns or to regression in the face of stress.

- (1) Immaturity with symptomatic "habit" reaction.
- (2) Emotional instability reaction.
- (3) Passive-dependency reaction.
- (4) Passive-aggressive reaction.
- (5) Aggressive reaction.

B. PATHOLOGICAL PERSONALITY TYPES. "Peculiar" and "difficult" individuals often showing many neurotic or psychotic characteristics but

usually managing to maintain a borderline adjustment.

- (1) Antisocial Personality.
- (2) Sexual Deviate.
- (3) Schizoid personality.
- (4) Paranoid personality.
- (5) Cyclothymic personality.
- (6) Inadequate personality.

(as quoted in Coleman, Chap. IX.) (13)

APPENDIX G.

Work done in Canada should, where possible, take cognizance of the classifications as they are given in the Mental Statistics Handbook of the Dominion Bureau of Statistics (39). While this is not of itself a psychological authority, it is the frame of reference within which Canadian researchers will do their work. Disorders of character, behaviour and intelligence as listed on pp. 46-47 of the Handbook include:

320. PATHOLOGICAL PERSONALITY

- 320.0 Schizoid personality.
 - .1 Paranoid personality.
 - .2 Cyclothymic personality.
 - .3 Inadequate personality.
 - .4 Antisocial personality.
 - .5 Asocial personality.
 - .6 Sexual deviation.
 - .7 Other and unspecified.

321. IMMATURE PERSONALITY.

- 321.0 Emotional instability.
 - .1 Passive dependency.
 - .2 Aggressiveness.
 - .3 Eneuresis characterizing immature personality.
 - .4 Other symptomatic habits except speech impediments.
 - .5 Other and unspecified.
- (Including Immature Personality NOS
Immaturity Reaction NOS)

The above classification is a portion of that adopted by the member nations of the World Health Organization and has been used in its present form since 1950.

APPENDIX H.

Results of attempt to use Fisher \bar{z} score formula to arrive at Pearson
r for Experimental and Psychopath Group.¹

Category	r	Category	r
<u>Location</u>		<u>Content</u>	
W	.81***	H	.41
D	.056	Hd	.45
d	.55	A	.80***
Dd	.32	Ad	.067
S	.46	Aobj	.30
Dd&S	.47	At&Sex	.22
<u>Determinants</u>		Obj	.62
M	.40	Pl	.18
FM	.81***	N	.219
m	.62	Geo	.64
k	.51	Food	.180
K	.64	Clouds	.188
FK	.034	Blood	.228
F	.77***	Fire	.18
Fc	.26	Mask	.031
c	.009		
C'	.034		
FC	.25	All Others	.46
CF	.54		
C	.16	P	.79

*** indicates the large score results
which appear to substantiate findings
with the Johnson formula. (Page 69)

-
1. from J.P.Guilford, Fundamental Statistics in Psychology and Education, III.Ed., N.Y., McGraw - Hill, 1956 p. 221-222 (19).
 2. Tables are found in H.E.Garrett, Statistics in Psychology and Education, IV Ed., N.Y.. Longmans Green, 1956 p.426 (18).

BIBLIOGRAPHY.

1. Ames, Louise Bates, et. al., Child Rorschach Responses, Hoeber Harper, 1952.
2. Beck, S.J., Rorschach's Test, Vol. I., New York, Grune and Stratton, 1950.
3. Beck, S.J. et al., "The Normal Personality as Projected in the Rorschach Test", Jour. Psychol., Vol. 30., 1950, 241-298.
4. Black, H.C., Black's Law Dictionary, III Ed., St. Paul, Minn., West Pub. House, 1933.
5. Bochner, R. and Halpern, F., The Clinical Application of the Rorschach Test, New York, Grune and Stratton, 1945. Chap. 14.
6. Brockway, A.L., Gleser, G., and Ulett, G., "Rorschach Concepts of Normality", J. Consult. Psychol., 1954, 18, 259-265.
7. Buhler, C., Buhler, K., and Lefever, D.W., Development of the Basic Rorschach Score with Manual of Directions, Los Angeles, Rorschach Standardization Studies, Western Psychological Services, 1948.
8. Campbell, J.W., Numerical Tables, Edmonton, University of Alberta, 1939, 1946.
9. Carlson, Rae, "A Normative Study of Rorschach Responses of Eight Year Old Children", J. Proj. Techniques, 16, 1952, 56-65
10. Cason, Hulsey, "The Characteristics of the Psychopath", Amer. Jour. Psychiatry, 105, Sept., 1948, 211-219
11. Cass, W.A., and McReynolds, P., "A Contribution to Rorschach Norms," J. Consult. Psychol., 15, 1951, 178-184.
12. Chornyak, John, "Some Remarks on the Diagnosis of the Psychopathic Delinquent", Amer. Jour. Psychiatry, 97, May 1941, 1326-1340.
13. Coleman, J.C., Abnormal Psychology and Modern Life, New York, Scott Foresman, 1950.
14. Coutou, Walter, "The Criminal Personality", Federal Probation, 6, Oct.-Dec. 1942, 25-30.
15. Cronbach, Lee J., Educational Psychology, New York, Harcourt Brace, 1954.

16. Fenichel, Otto, The Psychoanalytic Theory of Neurosis, New York, W.W.Norton, 1945. Chap.XVI
17. Geil, G.A., "The Similarity in Rorschach Patterns of Adult Criminal Psychopaths and Pre-Adolescent Boys", Ror. Res. Exch., 9, 1945, 201-207.
18. Garrett, H.E., Statistics in Psychology and Education, Fourth Edition, New York, Longmans Green, 1954.
19. Guilford, J.P., Fundamental Statistics in Psychology and Education, Third Edition, New York, McGraw - Hill, 1956, 221-222
20. Harrower-Erickson, M.R. and Steiner, M.E., Large Scale Rorschach Techniques, Springfield, Ill, C.C.Thomas, 1945
21. Hathaway, S.R., "The Personality Inventory as an Aid in the Diagnosis of Psychopathic Inferiors", J. Consult. Psychol., 3, 1939, 112-117.
22. Healy, W., "Abnormal Personalities", Jour. Nerv. Mental Disorders, Dec. 1951.
23. Henderson, D.K., Psychopathic States, New York, W.W.Norton Co., 1947.
24. Henderson, D.K. and Gillespie, R.D., Textbook of Psychiatry, New York, Oxford University Press, 1936.
25. Hertz, Marguerite and Barker, Elizabeth, "Personality Changes in Adolescence", Ror. Res. Exch., 5, 1941, 30.
26. Hertz, Marguerite and Ebert, Elizabeth, "The Mental Procedures of 6 and 8 Year Old Children as Revealed by the Rorschach Ink Blot Method", Ror. Res. Exch., 8, 1944, 10-30.
27. Johnson, P.O., Statistical Methods in Research, New York, Prentice Hall, 1949.
28. Kahn, Eugen, Psychopathic Personalities, New Haven, Yale Univ. Press, 1931.
29. Karpman, Benjamin, "The Yardstick for Measuring Psychopathy", Federal Probation, 10, Oct.-Dec. 1946, 26-31
30. Kay, Lillian and Vorhaus, Pauline, "Rorschach Reactions in Early Childhood", Ror. Res. Exch., 7, 1943, 71-77.
31. Klopfer, B., Ainsworth, M.D. et al., Developments in the Rorschach Technique, Vols. I and II. New York, World Book Co., 1954, 1956.

32. Klopfer, B. and Kelley, D.M., The Rorschach Technique: A Manual, New York, World Book Co., 1946.
33. Klopfer, B., Margulies, H. et al., "Rorschach Reactions in Early Childhood," Ror. Res. Exch., 5, 1941, 1-23.
34. Kuhn, Roland, "Der Rorschachische Formdeutversuch In Der Psychiatrie," Monatschrift fur Psychiatrie und Neurologie, Vol. 103, No.1-2. (from an Abstract by Collin, A.G., in Ror. Res. Exch. 7, 1943, 169ff.)
35. Lindner, R.M., Stone Walls and Men, New York, Odyssey Press, 1945.
36. Lindner, R.M., "The Rorschach Test and the Diagnosis of Psychopathic Personality," J. Crim. Psychopath., 5, July 1943, 69-93.
37. Lindquist, E.F., A First Course in Statistics, Rev. Ed., Boston, Houghton-Mifflin Co., 1942.
38. Martin, J.C., (ed.), The Criminal Code of Canada, Toronto, Cartwright and Sons, 1955.
39. Mental Statistics Handbook, Second Ed., Dominion Bureau of Statistics, Ottawa, Queen's Printer, 1954.
40. Munroe, Ruth, "Inspection Technique," Ror. Res. Exch. 5, 1941, 166-91.
41. Neave, F.G., Mozely and Whitely's Law Dictionary, Fourth Ed., London, Butterworth and Co., 1923.
42. Neff, W.S. and Lidz, T., "Rorschach Patterns of Normal Subjects of Graded Intelligence", J. Proj. Tech., 15, 1951, 45-57.
43. Neff, W.S. and Glaser, N.M., "Normative Data on the Rorschach", J. of Psychology, 1954, 37, 95-103.
44. Noyes, A.P., Modern Clinical Psychiatry, Philadelphia, W.B. Saunders, 1948.
45. Paulsen, Alma, "Rorschachs of School Beginners", Ror. Res. Exch., 5, 1941, 24-28.
46. Phillips, Leslie, and Smith, J.G., Rorschach Interpretation: Advanced Technique, New York, Grune and Stratton, 1953.
47. Rapaport, David, Gill, Merton and Schafer, Roy, Diagnostic Psychological Testing, Vol. II, Chicago, The Year Book Publishers, 1945.

48. Rosenberg, S.J. and Feldberg, T.M., "Rorschach Characteristics of a Group Of Malingerers", Ror. Res. Exch., 8, 1944, 141-158.
49. Salfield, D.J., "An attempt at a Numerical Evaluation of Rorschach Results", J. Gen. Psychol., 1950, 43, 305-311.
50. Shalloo, J.P., "Trends in Criminological Research", Federal Probation, 6, Oct.-Dec. 1942, 21-24.
51. Stavrianos, Bertha, "An Investigation of Sex Differences in Children as Revealed by Rorschach Methods", Ror. Res. Exch., 6, 1942, 168-175.
52. Strecker, E.A. and Ebaugh, F.G., Clinical Psychiatry, Philadelphia, Blakiston, 1935.
53. Thornton, Nathaniel, "The Relation Between Crime and Psychopathic Personality", Journal of Criminal Law and Criminology, 42, Aug.-Sept. 1951, 199-204.
54. Thorpe, L.P. and Katz, B., The Psychology of Abnormal Behavior, New York, The Ronald Press, 1948.
55. Vedder, C.B., Koenig, S., and Clark, R.E., Criminology, A Book of Readings, New York, Dryden Press. (Articles by Karpman, Coutou, Thornton and Shalloo were reprinted in this volume).
56. Vorhaus, Pauline G., Rorschach Reactions in Early Childhood, Pt. III., Ror. Res. Exch., 8, 1944, 71-91.
57. Walker, H.M. and Lev, J., Statistical Inference, New York, Henry Holt, 1953. p. 423 ff.
58. Walters, Richard H., "A Preliminary Analysis of the Rorschach Records of Fifty Prison Inmates", J. Prog. Tech., 17, 1953, 437-446.
59. Wedemeyer, Barbara, "Rorschach Statistics on a Group of 136 Normal Men," Jour. Psychol., Jan. 1954, 51-58.

B29776